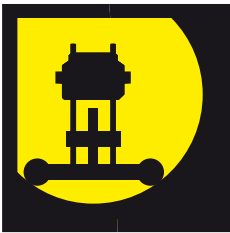


Universal pointer bracket

Number 1 in laser precision alignment

 **PRÜFTECHNIK**
Alignment Systems



A user's handbook

Dear Customer,

If you have any suggestions for improvement or corrections (not just to this manual, but also for hardware), please drop us a line. We would be glad to make improvements wherever possible.

We look forward to hearing from you.

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Foreword

Congratulations and thank you for your decision to use the Universal pointer bracket for centerline alignment. This unique bracket design provides the quick and rigid mounting required for accurate measurement. Moreover, its versatile design lets you surmount centerline measurement tasks in a wide variety of situations. The few minutes it takes to familiarize yourself with the various parts and their functions will surely be time well spent.

Despite its simple appearance, the bracket you see before you is actually the final product of a rather extensive design process to ensure optimum performance in terms of both accuracy and stability. As a matter of fact, many subtle factors come into play to determine measurement results, and so it must be emphasized that under no circumstances may the bracket or its components be modified from their condition as originally delivered. Doing so would not only void all warranty coverage, but worse yet, may easily jeopardize measurement accuracy and repeatability.

This is not to say, however, that unusual situations cannot be mastered with the bracket: please inform your PRÜFTECHNIK Alignment sales or service partner or contact PRÜFTECHNIK Alignment Systems directly to discuss your special requirements and benefit from our combination of expertise and experience. At the same time, you will be contributing to the design requirements for the next generation of alignment equipment.

We wish you much success with the use of the Universal pointer bracket.

PRÜFTECHNIK Alignment Systems
July 2007
Ismaning, Germany

Contents

A user's handbook	1
Foreword	2
Safety notes	5
Safety symbols.....	5
Functioning of the universal pointer bracket	6
Mounting position in magnetic bores.....	6
Mounting procedure	6
Mounting examples	6
Preparation.....	6
General information on mounting.....	7
Using the overview table.....	7
Smallest bore diameter (120 mm) – magnetic bore.....	8
Components and tools	8
Largest bore diameter (810 mm) – magnetic bore	10
Components and tools	10
Smallest bore diameter (120 mm) – non-magnetic bore	15
Components and tools	15
Largest bore diameter (810 mm) – non-magnetic bore.....	18
Components and tools	18
Additional mounting configurations	24
Mounting the plunger guide plate to the sensor holder.....	24
Using the bore surface protectors.....	24
Mounting the anti-torsion bridge.....	24
Setting up the laser beam	25
Positioning the universal pointer bracket within a bore	26
Positioning the universal pointer bracket within magnetic bores.....	28
Positioning the universal pointer bracket within non-magnetic bores.....	29
Positioning the universal pointer bracket outside non-magnetic bores.....	30
Available packages	31
Contents of the universal pointer bracket set ALI 2.720 SET.....	31
Contents of the universal pointer bracket set ALI 2.721 SET.....	31
Contents of the universal pointer bracket set ALI 2.722 SET.....	31
Contents of the bore pointer bracket (magnetic/non-magnetic) ALI 2.720FSET	32
Contents of the bore pointer bracket (magnetic/non-magnetic) ALI 2.721FSET	32
Contents of the bore pointer bracket (magnetic/non-magnetic) ALI 2.722FSET	33
Application based configuration tables	34
An overview of the bracket sets and related accessories for each bore diameter.....	34
ALI 2.720 SET	34
ALI 2.721 SET	34
ALI 2.722 SET	35
Bore diameter 120 – 400 mm	35
Bore diameter 390 – 810 mm	35
ALI 2.720F SET	36
Magnetic bores with diameters 120 – 210 mm	36
Non-magnetic bores with diameters 120 – 210 mm.....	36
Magnetic bores with diameters 210 – 400 mm	37
Non-magnetic bores with diameters 210 – 400 mm.....	37
ALI 2.721F SET	38
Magnetic bores with diameters 390 – 810 mm.....	38

Non-magnetic bores with diameters 390 – 810 mm..... 39
Magnetic bores with diameters 120 – 210 mm..... 40
Non-magnetic bores with diameters 120 – 210 mm..... 40
Magnetic bores with diameters 210 – 400 mm..... 41
Non-magnetic bores with diameters 210 – 400 mm..... 41
Magnetic bores with diameters 390 – 810 mm..... 42
Non-magnetic bores with diameters 390 – 810 mm..... 43

Storage and transport case44
Placement of parts in ALI 3.889 case 44

List of part numbers45
Part number / Description 45

Overview of bracket components46

Index48

Safety notes

The universal pointer brackets are to be used in industrial environments only for centerline alignment. Care must be taken to ensure that the brackets are not subjected to mechanical knocks. The brackets are to be used only by properly trained personnel. No liability will be assumed when components or operating procedures as described in this manual are altered without permission of the manufacturer.

Safety symbols

The following symbols are used in this manual in order to draw the reader's attention to especially important text, such as that regarding possible sources of danger or useful operating tips.

This symbol denotes general information and tips regarding operation of the universal pointer brackets.

This symbol denotes information which must be followed in order to avoid damage to equipment.

This symbol denotes information which must be followed in order to avoid personal injury.

The number within the red circle corresponds to the instruction with the same number and must be followed exactly.



Functioning of the universal pointer bracket

The universal pointer bracket is used to mount the receiver inside magnetic bores, and also on non-magnetic bores.

The receiver is mounted on the sensor holder which is can be freely rotated, and with the aid of a plunger, the inside surface of the bore is then measured.

The precision mechanics of the universal pointer bracket ensure accurate and repeatable measurement results.

Mounting position in magnetic bores

The mounting configuration below makes it possible to measure the inside bore surface at any position.

A complete overview of the bracket configuration and corresponding bore diameters is found on pages 34-43.

Mounting procedure

Before a bore can be measured, the universal pointer bracket has to be assembled and mounted in/on the bore. This is followed by the laser set-up, and finally the bore measurement.



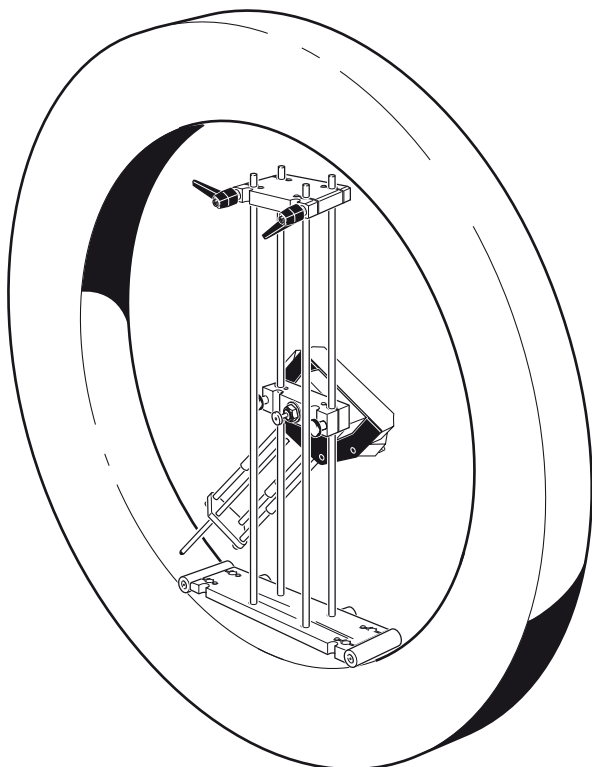
Note

Mounting examples

The mounting configurations described here are for bore diameters ranging from a minimum of 120 mm to a maximum diameter of 810 mm. Also described is the mounting of the brackets **inside** both magnetic and non-magnetic bores as well as the mounting **outside** non-magnetic bores. It is advisable to try out an example before proceeding to carry out a true measurement.

Preparation

Use the overview table on pages 34-43 to identify the accessories required for the present bore configuration. The individual accessories and components are shown and described on pages 46-47.



General information on mounting

In magnetic bores, the universal bracket attached to the bore using the powerful magnets on the universal mounting bridge. No additional fixtures are necessary to keep the universal pointer bracket inside the bore.

In non-magnetic bores, the universal pointer bracket is fixed inside/outside the bore with the aid of the eccentric head.

The assembly of the bracket for use outside the bore is identical to the assembly for non-magnetic bores. The difference is the use of longer support posts when mounting the bracket outside the bore.

Using the overview table

From the overview table on pages 34-43, select the table that matches the type (magnetic or non-magnetic) and diameter of bore to be measured. Identify the diameter, and follow its column right through to the bottom of the table. This enables the selection of all required accessories. In the example table below (second table), the components required for a magnetic bore with a diameter of between 120 mm and 160 mm are highlighted in white. Note that certain components are used in various bore diameter configurations. For example, the mounting bridge ALI 2.783-S is used for all bore diameters (120 mm – 400 mm) shown on the table.

Bore diameter	120 -160 mm	150 -230 mm	180 - 280 mm	275 -300 mm	290 -400 mm
Support posts	2 pcs / 70 mm ALI 2.177	2 pcs /115 mm ALI 2.170	2 pcs / 150 mm ALI 2.171	2 pcs / 150 mm ALI 2.171	2 pcs / 200 mm ALI 2.172
Mounting bridge	1 / ALI 2.783-S				
Plunger	1 / 110 mm / ALI 2.773-110			1 / 270 mm / ALI 2.733-270	
Sensor holder	1 / ALI 2.771				
Anti-torsion bridge	---			1 / ALI 2.778	

Example

Bore diameter	120 -160 mm	150 -230 mm	180 - 280 mm	275 -300 mm	290 -400 mm
Support posts	2 pcs / 70 mm ALI 2.177	2 pcs /115 mm ALI 2.170	2 pcs / 150 mm ALI 2.171	2 pcs / 150 mm ALI 2.171	2 pcs / 200 mm ALI 2.172
Mounting bridge	1 / ALI 2.783-S				
Plunger	1 / 110 mm / ALI 2.773-110			1 / 270 mm / ALI 2.733-270	
Sensor holder	1 / ALI 2.771				
Anti-torsion bridge	---			1 / ALI 2.778	

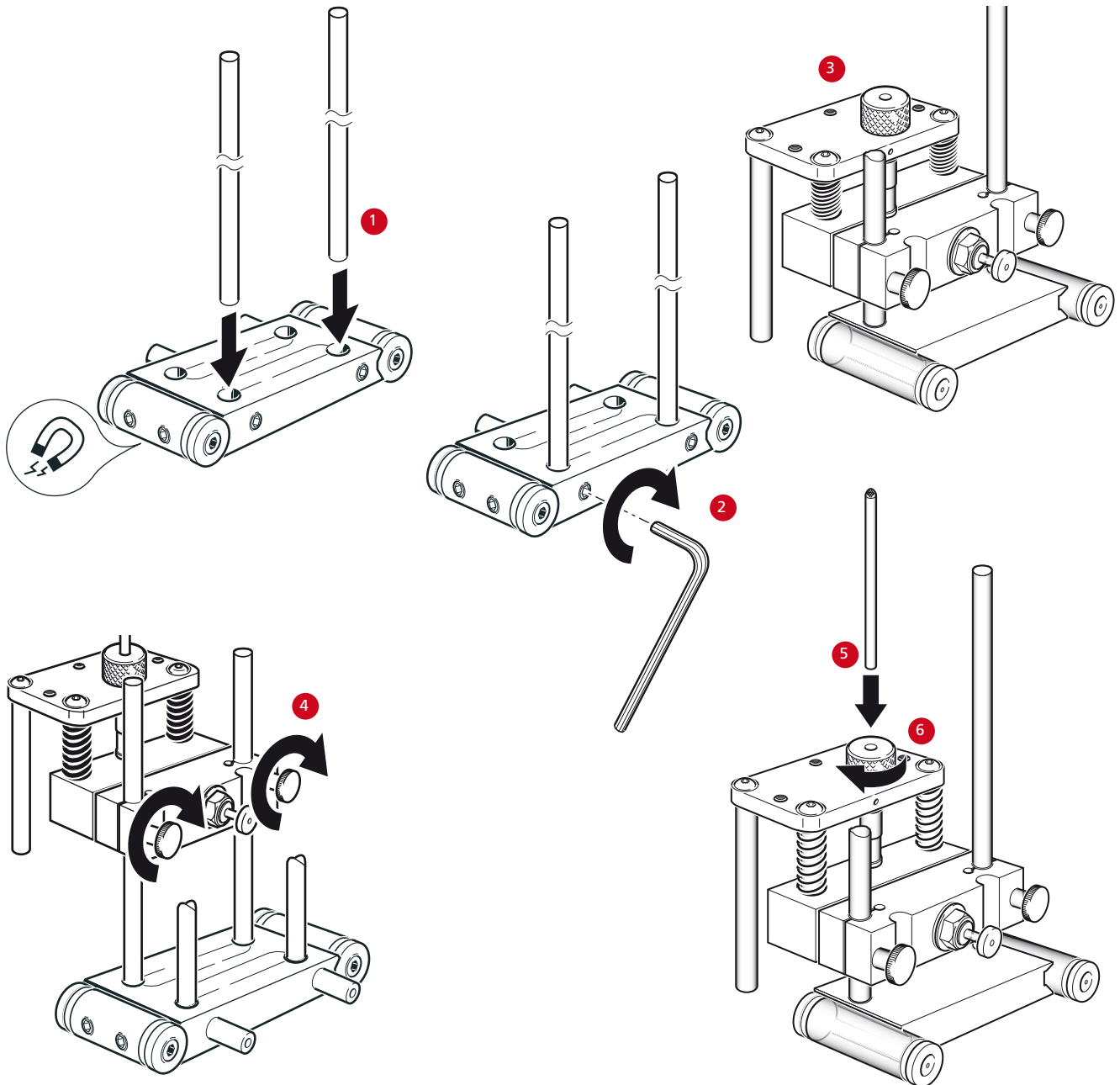
Components required for bores with diameters between 120 mm and 160 mm

Smallest bore diameter (120 mm) – magnetic bore

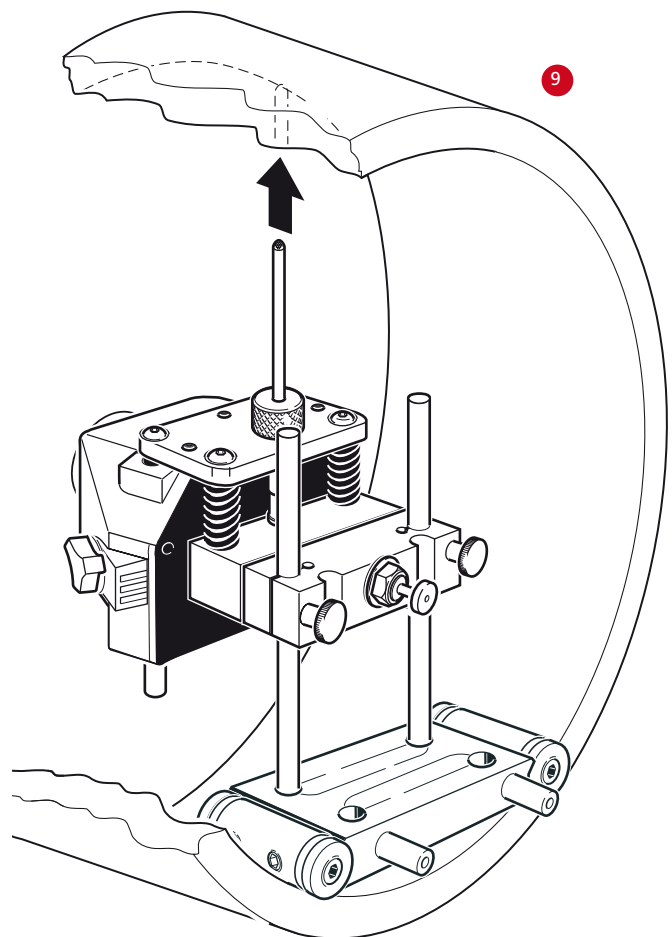
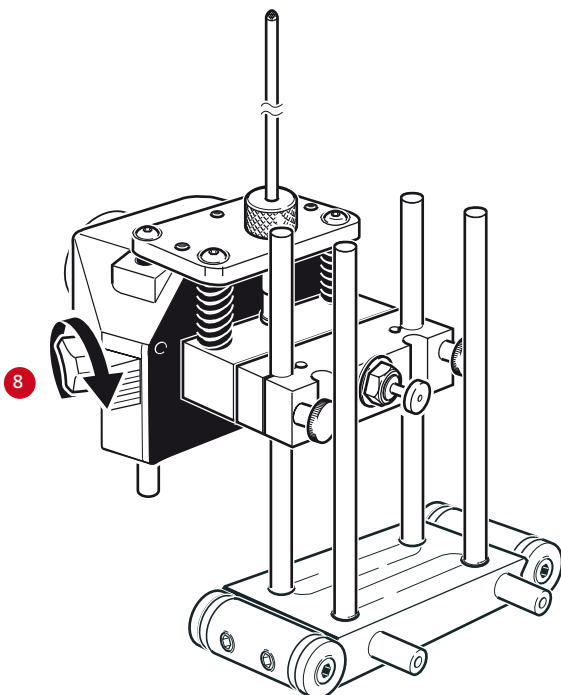
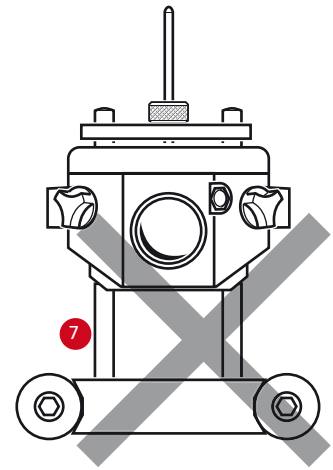
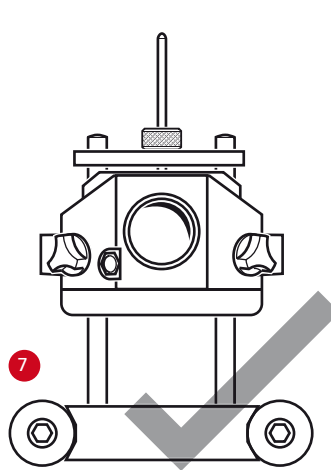
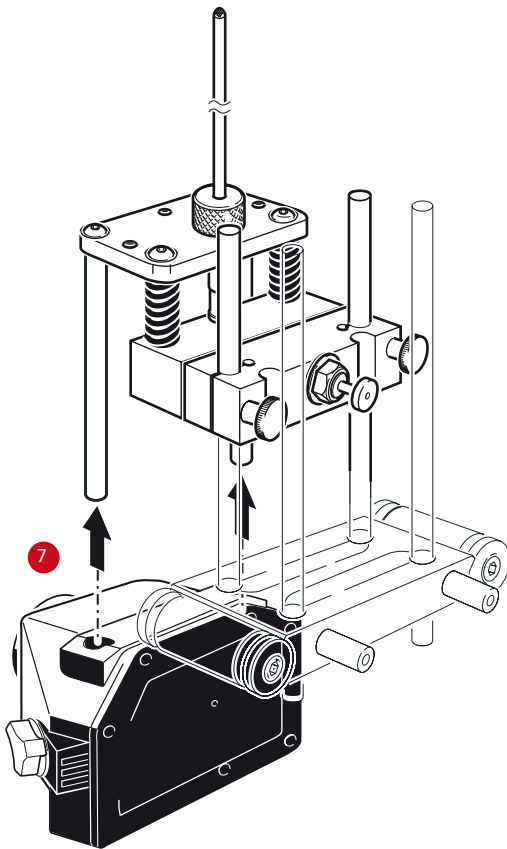
Components and tools

Universal mounting bridge with studs	ALI 2.783-5
Support posts (2 pieces), 70 mm (2 3/4"), black	ALI 2.177
Sensor holder	ALI 2.771
Plunger 110 mm (4 3/8")	ALI 2.773-110
Allen key, 3 mm (1/8")	0 0739 1056

- 1) Insert the support posts ALI 2.177 in the holes in the universal mounting bridge ALI 2.783-5 as shown below.
- 2) Hold the support posts in place by tightening the hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.
- 3) Mount the sensor holder ALI 2.771 onto the support posts as shown below.
- 4) Hold the sensor holder ALI 2.771 in position by tightening the two thumbwheels as shown below.
- 5) Insert the plunger ALI 2.773-110 through the top of the sensor holder ALI 2.771.
- 6) Hold the plunger in place by tightening the thumbwheel.



- 7) Slide the receiver onto the sensor holder as illustrated below, until the top of the receiver makes contact with the top frame of the sensor holder. Pay attention to the correct orientation of the receiver (refer to the diagrams below).
- 8) Once the receiver is in position, tighten the yellow locking knobs.
- 9) Carry out the laser set-up as described on page 25, then insert the bracket assembly (together with the receiver) as described on pages 26-27.

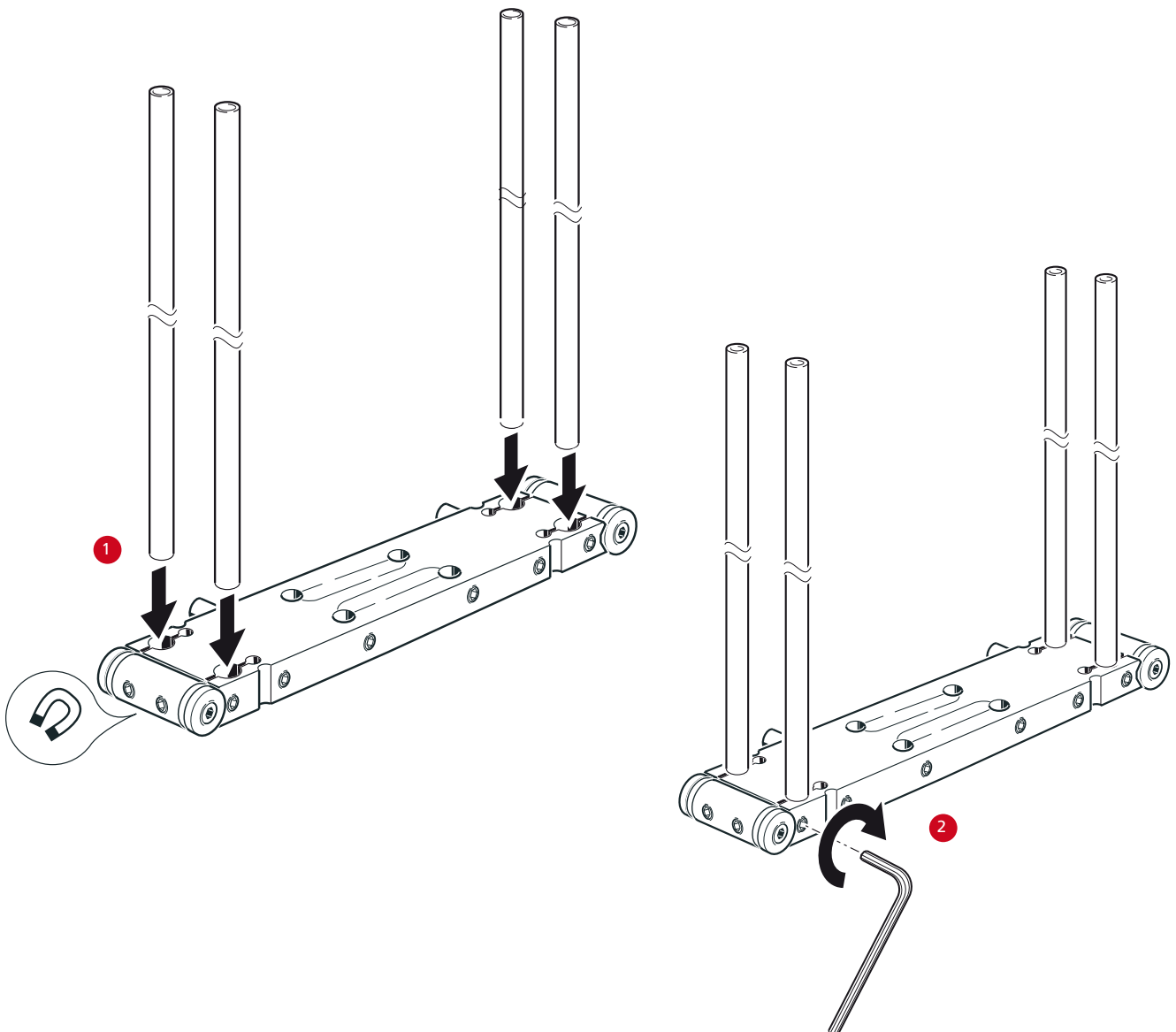


Largest bore diameter (810 mm) – magnetic bore

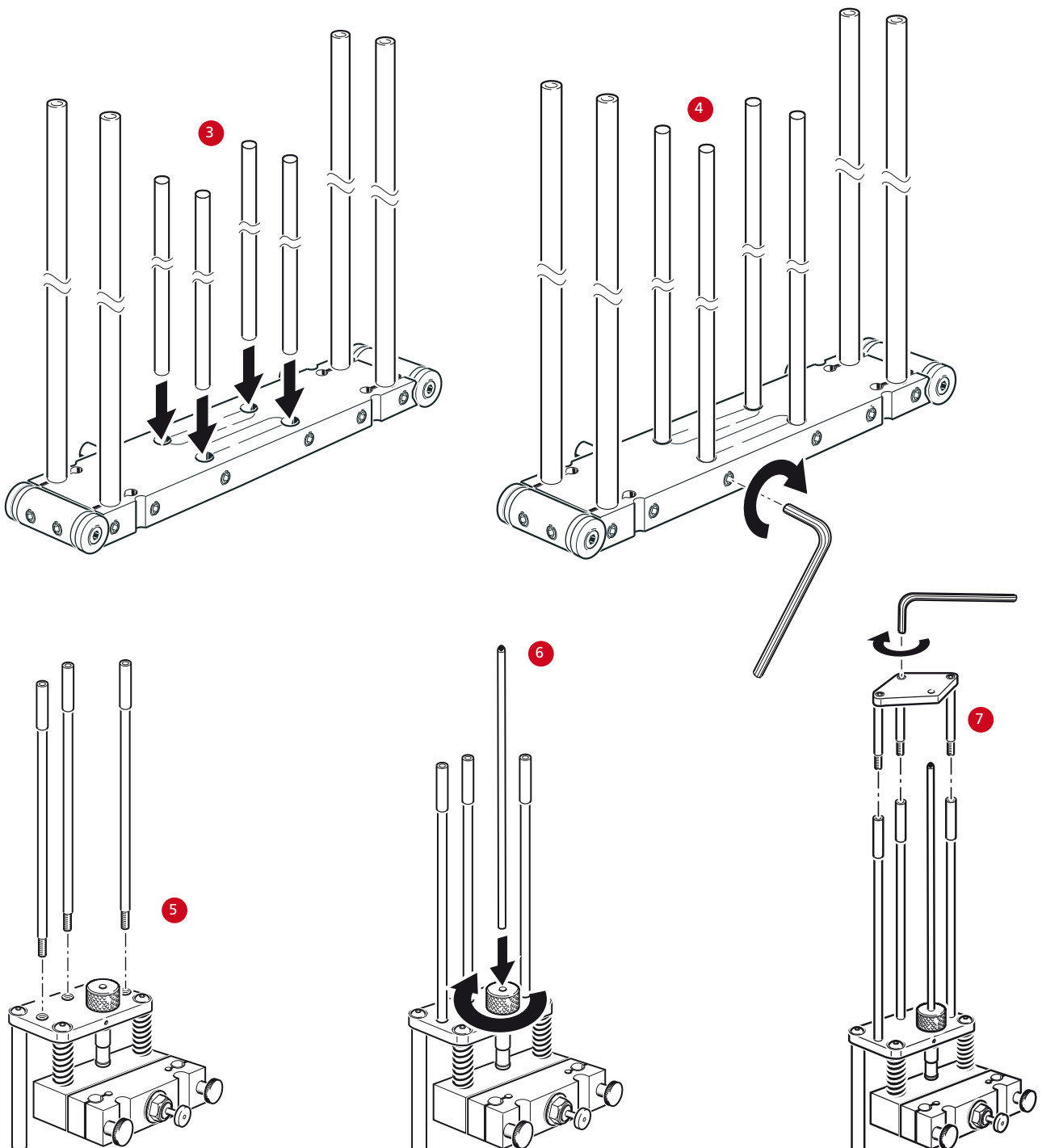
Components and tools

Universal mounting bridge with studs	ALI 2.783-M
Stabilising posts (4 pieces), 500 mm (19 1/2")	ALI 2.777-500
Support posts (4 pieces), 495 mm (19 7/16"), black	ALI 2.179
Intermediate mounting bridge	ALI 2.784-M
Sensor holder	ALI 2.771
Extension posts (3 pieces), 165 mm (6 3/8")	ALI 2.766
Plunger guide plate	ALI 2.772
Plunger, 415 mm (16 5/16")	ALI 2.773-415
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

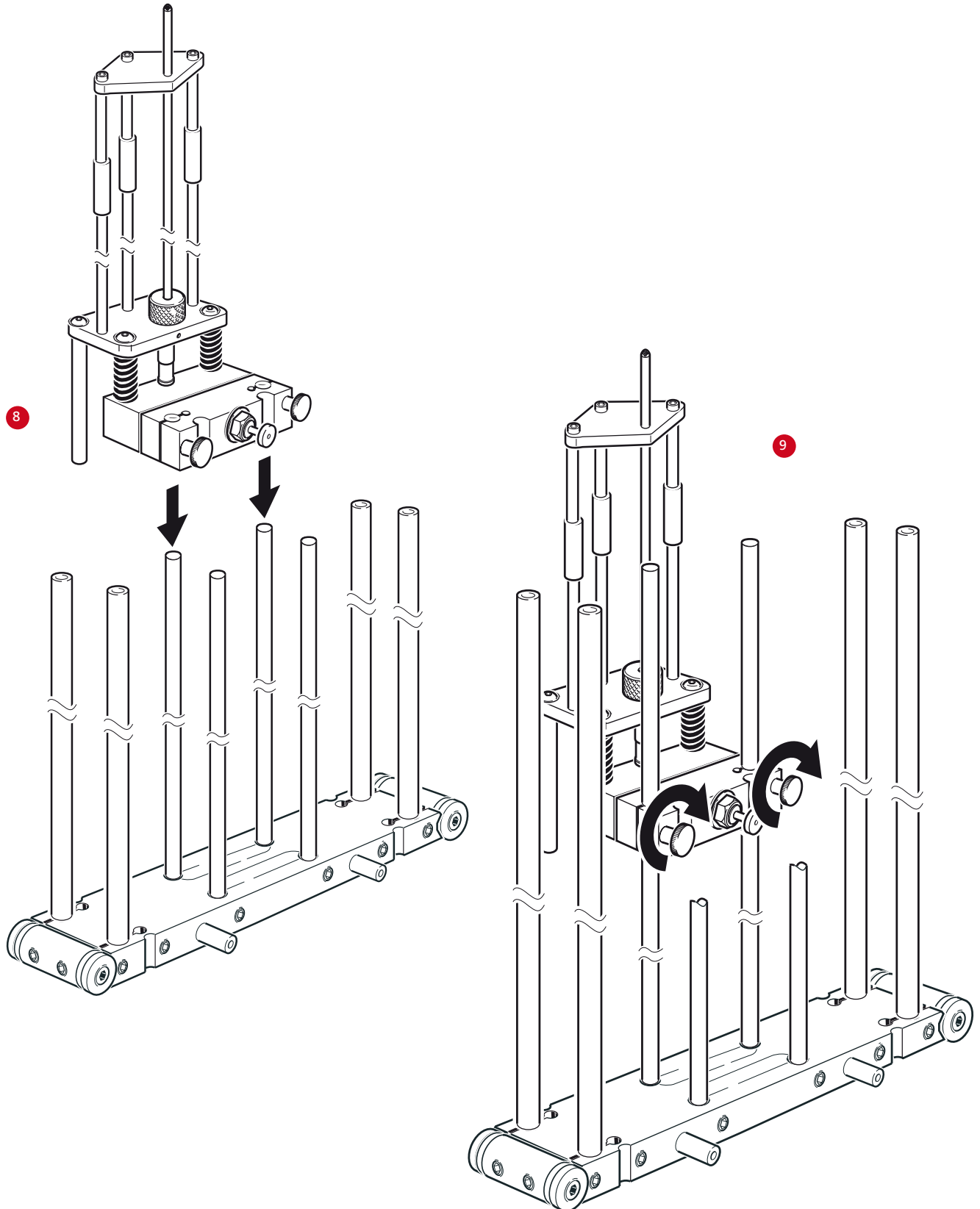
- 1) Insert the four stabilising posts ALI 2.777-500 in the four outside holes of the universal mounting bridge ALI 2.783-M as illustrated below.
- 2) Hold the stabilising posts in place by tightening the four hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.



- 3) Insert the four support posts ALI 2.179 in the four inside holes of the universal mounting bridge ALI 2.783-M as illustrated below.
- 4) Hold the supporting posts in place by tightening the four hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.
- 5) Screw-in the three extension posts for the plunger guide plate ALI 2.766 to the sensor holder ALI 2.771 as illustrated below.
- 6) Insert the plunger ALI 2.773-415 through the top of the sensor holder ALI 2.771, holding it into place using the thumbwheel as illustrated below.
- 7) Mount the plunger guide plate ALI 2.772 to the extension posts ALI 2.766 using the 4 mm allen key as shown below.



- 8) Mount the sensor holder assembly put together in (7) above to the universal mounting bridge assembly put together in (4) above. (See illustration [4].)
- 9) Hold the sensor holder assembly in position by tightening the two thumbwheels as shown below.

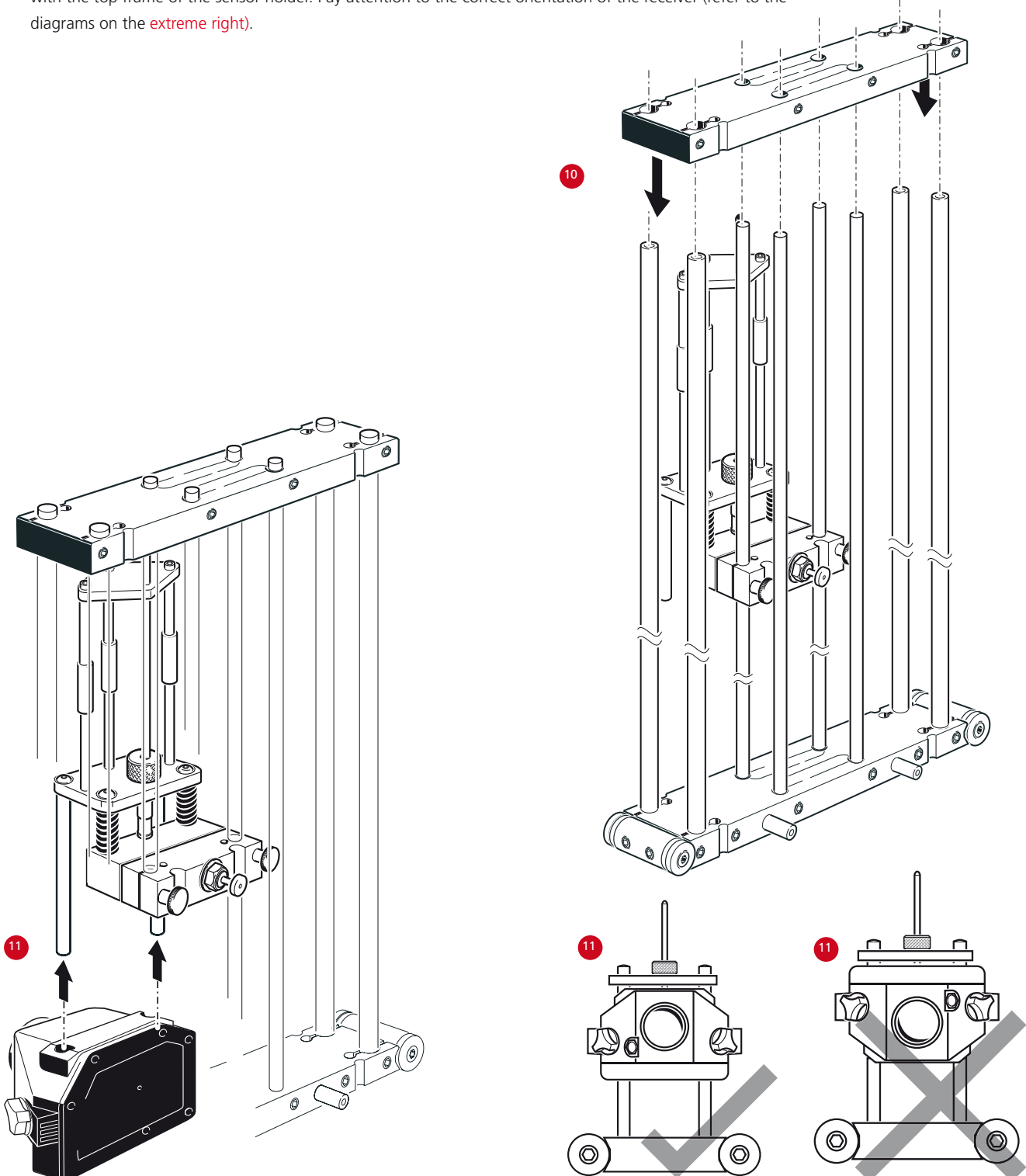


- 10) Mount the intermediate mounting bridge 2.784-M onto the support and stabilising posts, and hold it in place by tightening the hexagon socket screws using the 3 mm allen key 0 0739 1056

DO NOT tighten the hexagon socket screws positioned at the far ends of the intermediate mounting bridge unless all FOUR stabilising posts are in position. Tightening the screws in the absence of any one stabilising post results in permanent deformation of the intermediate mounting bridge.

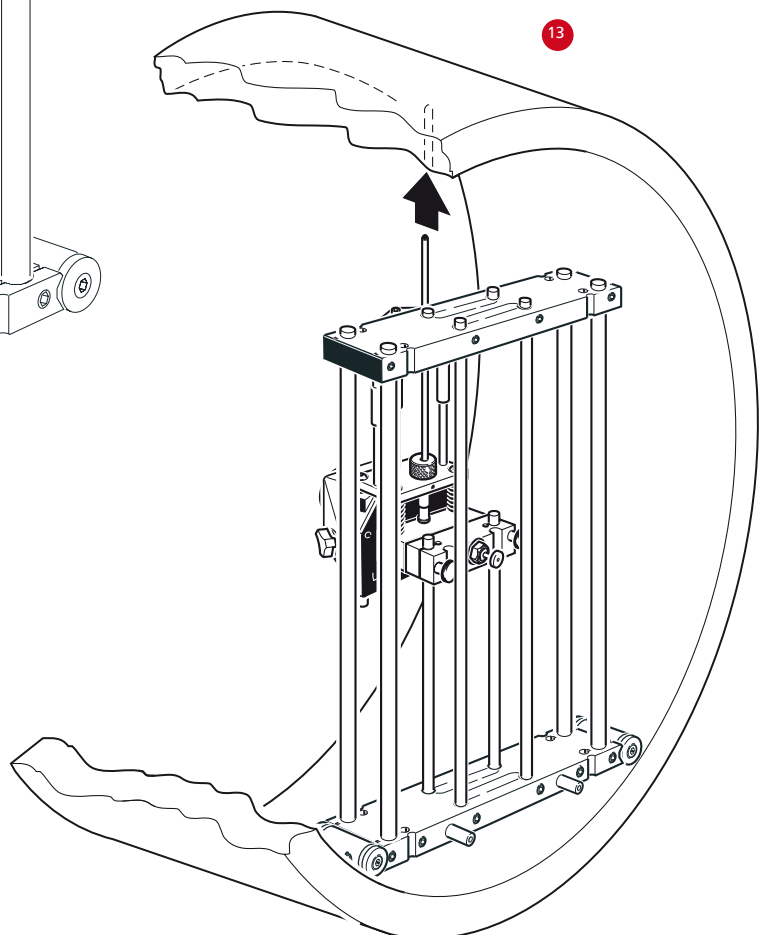
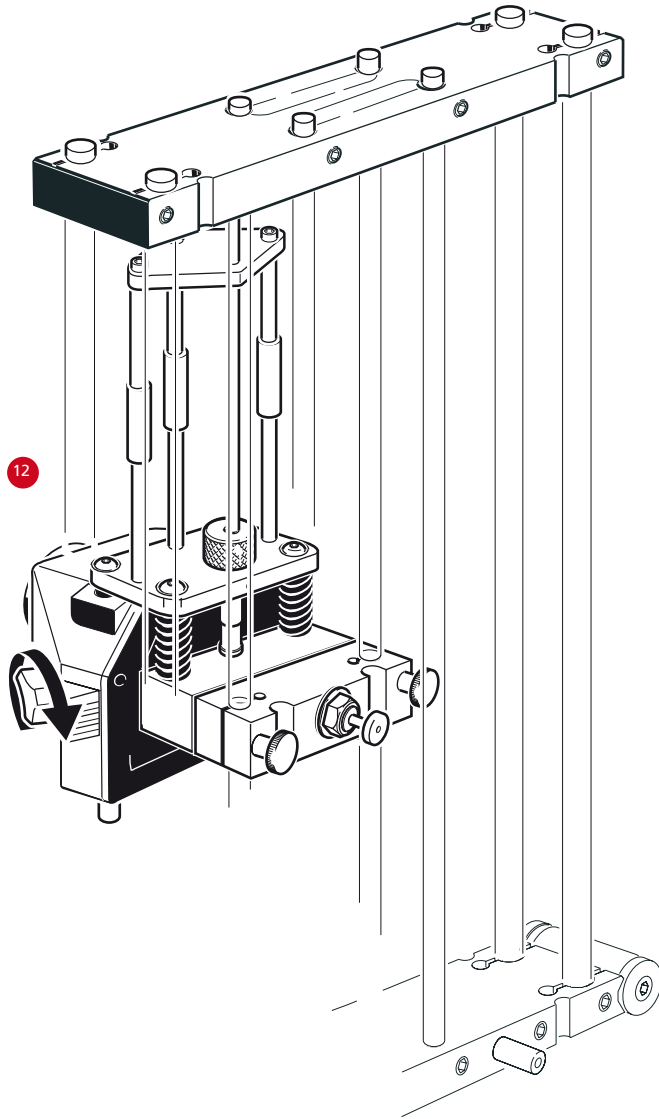


- 11) Slide the receiver onto the sensor holder as illustrated below, until the top of the receiver makes contact with the top frame of the sensor holder. Pay attention to the correct orientation of the receiver (refer to the diagrams on the extreme right).



12) Once the receiver is in position, tighten the yellow locking knobs.

13) Carry out the laser set-up as described on page 25, then insert the bracket assembly (together with the receiver) as described on pages 3X-3Y.

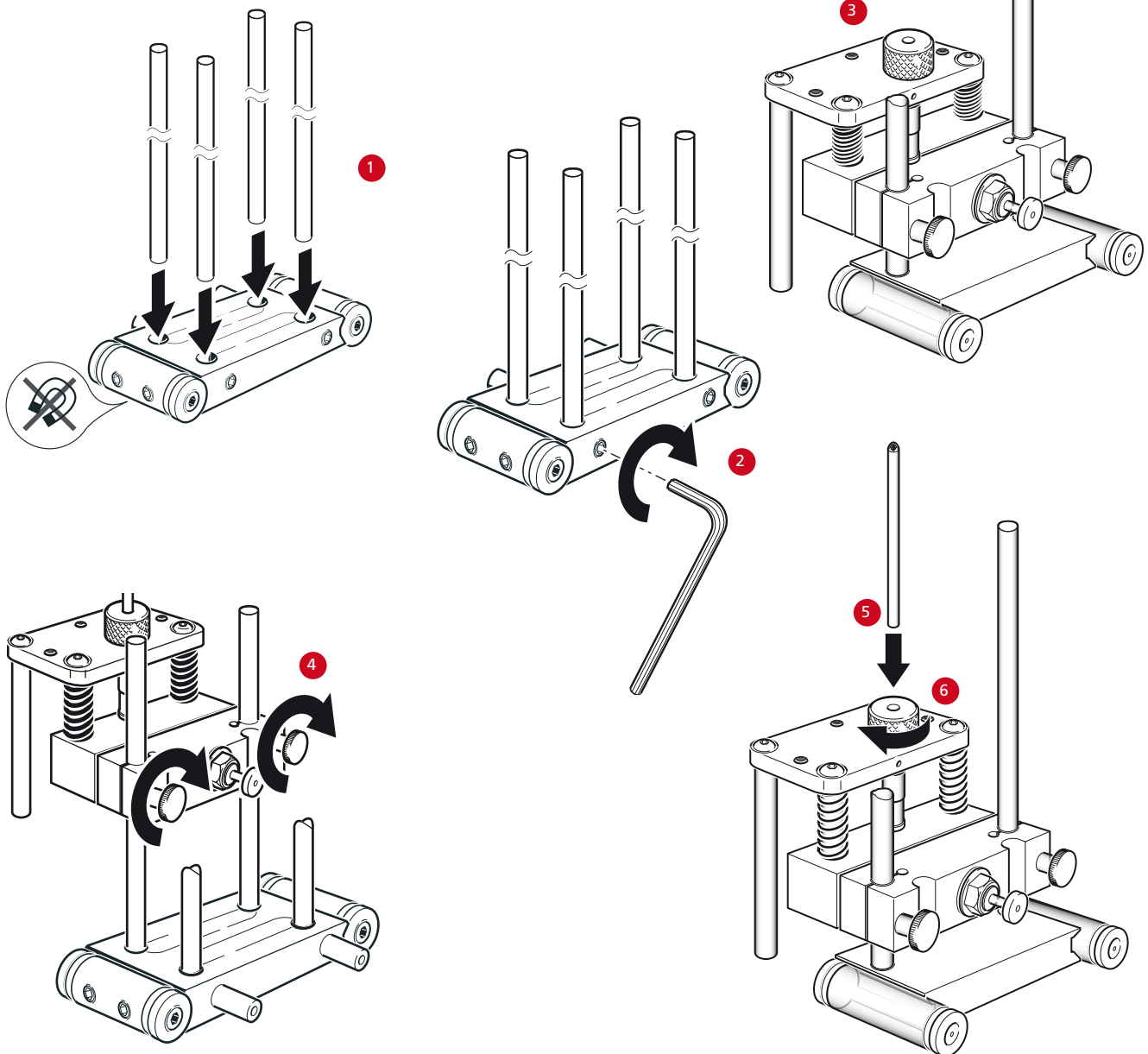


Smallest bore diameter (120 mm) – non-magnetic bore

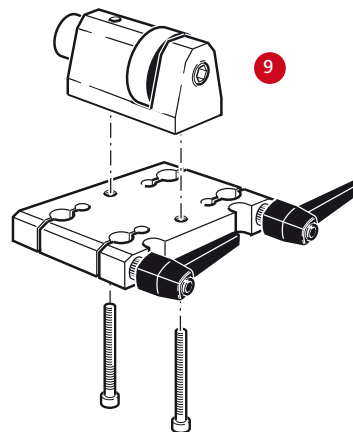
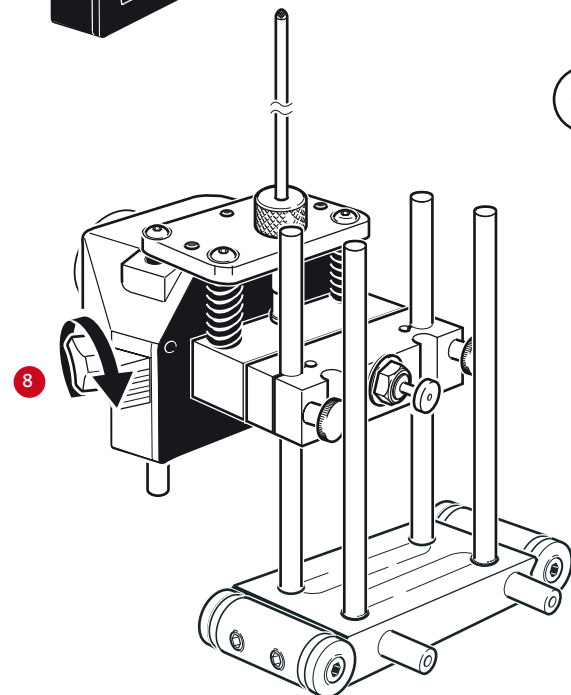
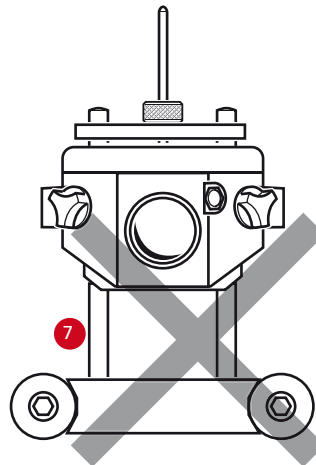
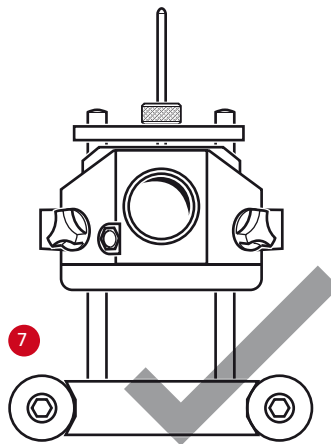
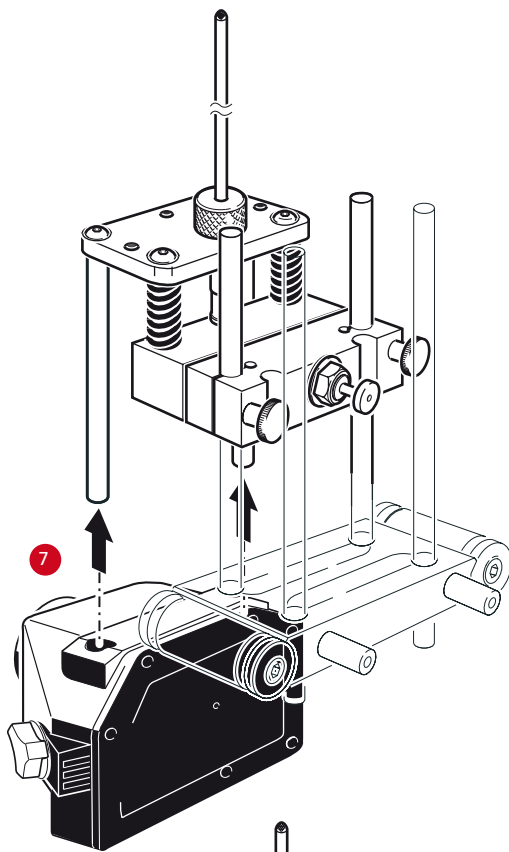
Components and tools

Universal mounting bridge with studs	ALI 2.783-5
Support posts (4 pieces), 70 mm (2 3/4"), black	ALI 2.177
Sensor holder	ALI 2.771
Plunger 110 mm (4 3/8")	ALI 2.773-110
Clamping bridge	ALI 2.782-1
Eccentric head	ALI 2.782-2
Allen key, 3 mm (1/8")	0 0739 1056

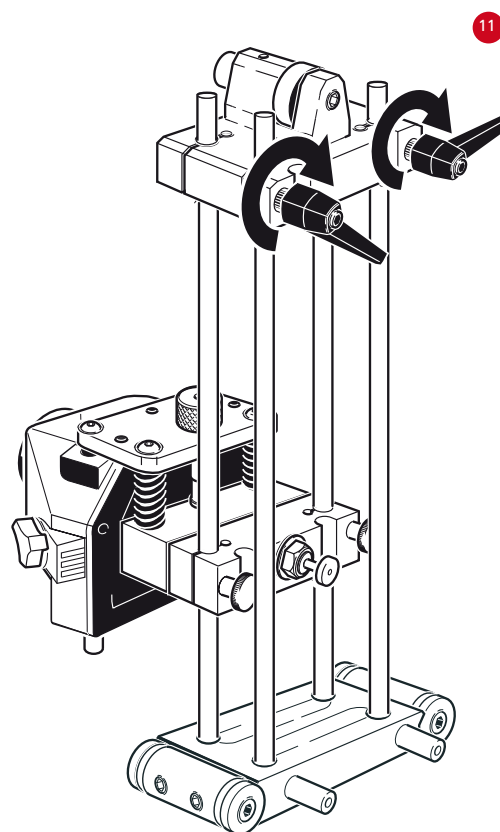
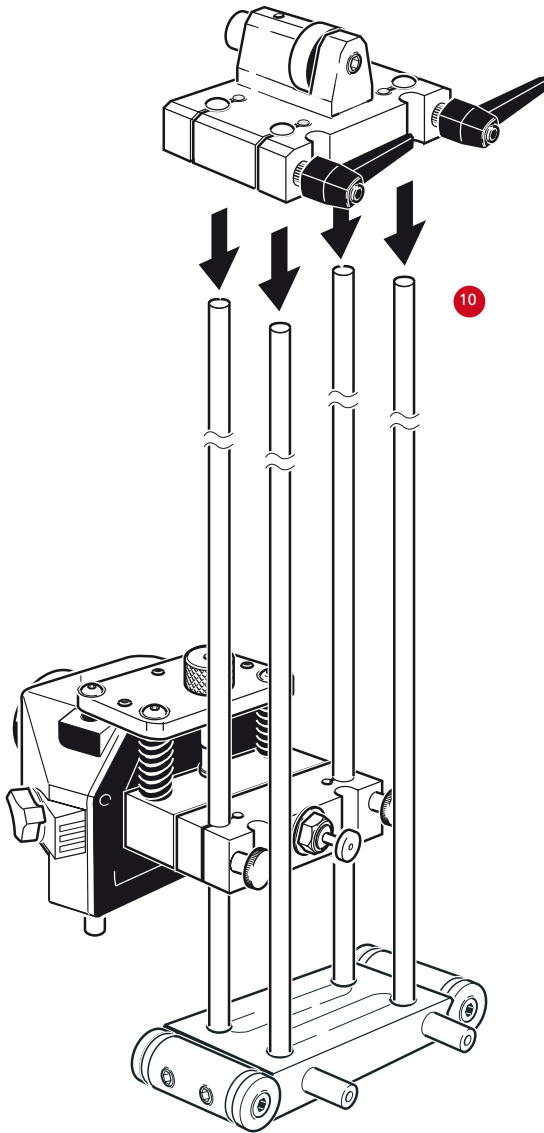
- 1) Insert the support posts ALI 2.177 in the holes in the universal mounting bridge ALI 2.783-5 as shown below.
- 2) Hold the support posts in place by tightening the hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.
- 3) Mount the sensor holder ALI 2.771 onto the support posts as shown below.
- 4) Hold the sensor holder ALI 2.771 in position by tightening the two thumbwheels as shown below.
- 5) Insert the plunger ALI 2.773-110 through the top of the sensor holder ALI 2.771.
- 6) Hold the plunger in place by tightening the thumbwheel.



- 7) Slide the receiver onto the sensor holder as illustrated below, until the top of the receiver makes contact with the top frame of the sensor holder. Pay attention to the correct orientation of the receiver (refer to the diagrams below).
- 8) Once the receiver is in position, tighten the yellow locking knobs.
- 9) Mount the eccentric head ALI 2.782-2 onto the clamping bridge ALI 2.782-1. Use the two provided short screws and the 3 mm allen key 0 0739 1056.



10. Mount the eccentric head/clamping bridge assembly put together in (9) above to the four support posts as illustrated below. The assembly is to be mounted on the side opposite to the sensor holder so that the clamping levers do not obstruct the plunger during rotation.
- 11) Hold the eccentric head/clamping plate assembly in position by tightening the clamping levers.
- 12) Carry out the laser set-up as described on page 25, and then insert the bracket assembly (together with the receiver) as described on pages 26-27.



Clamping levers

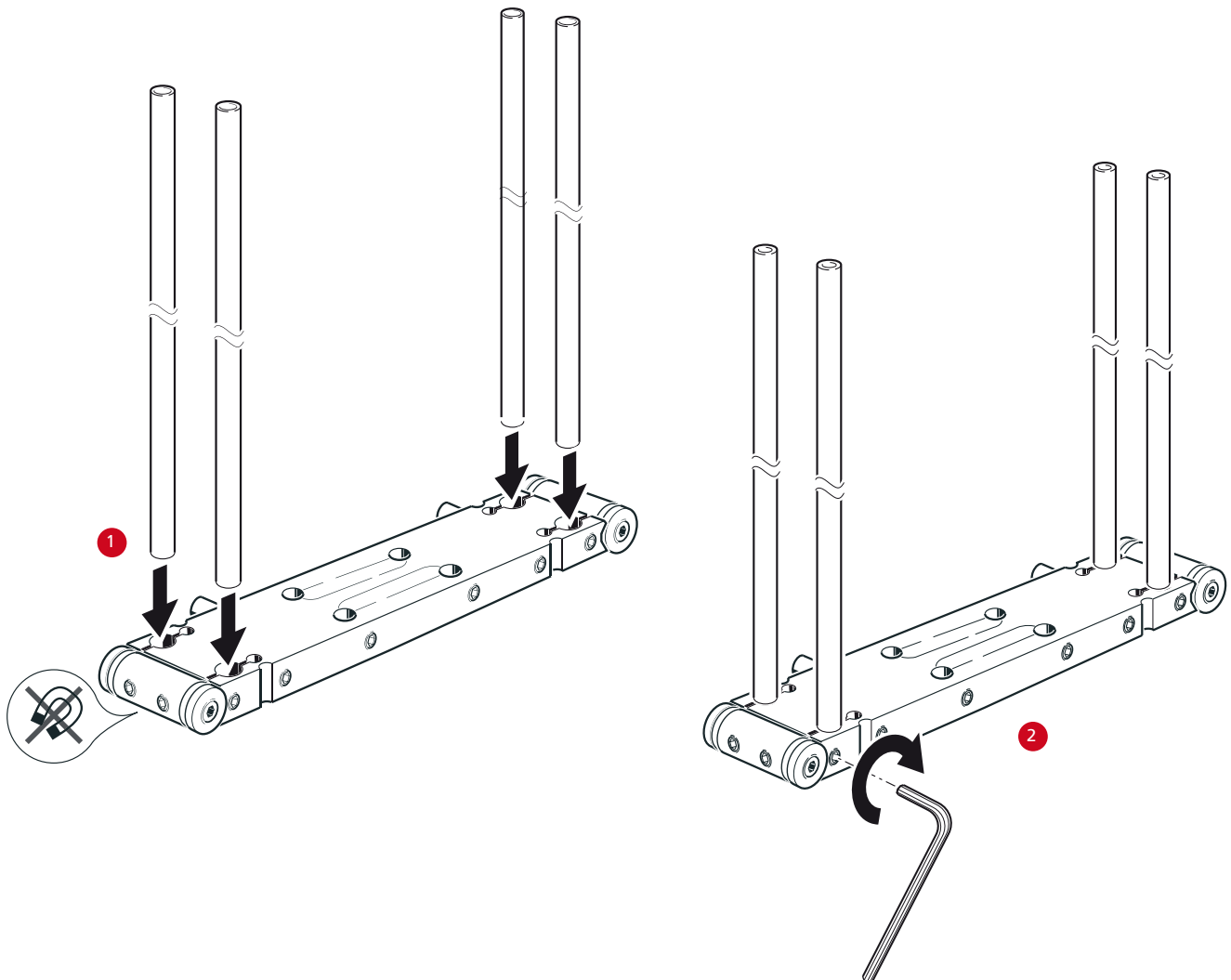
The clamping levers are used to fasten the clamping bridge onto the supports posts without the need of any extra tools. In areas with space limitations, the lift and release feature enables you to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

Largest bore diameter (810 mm) – non-magnetic bore

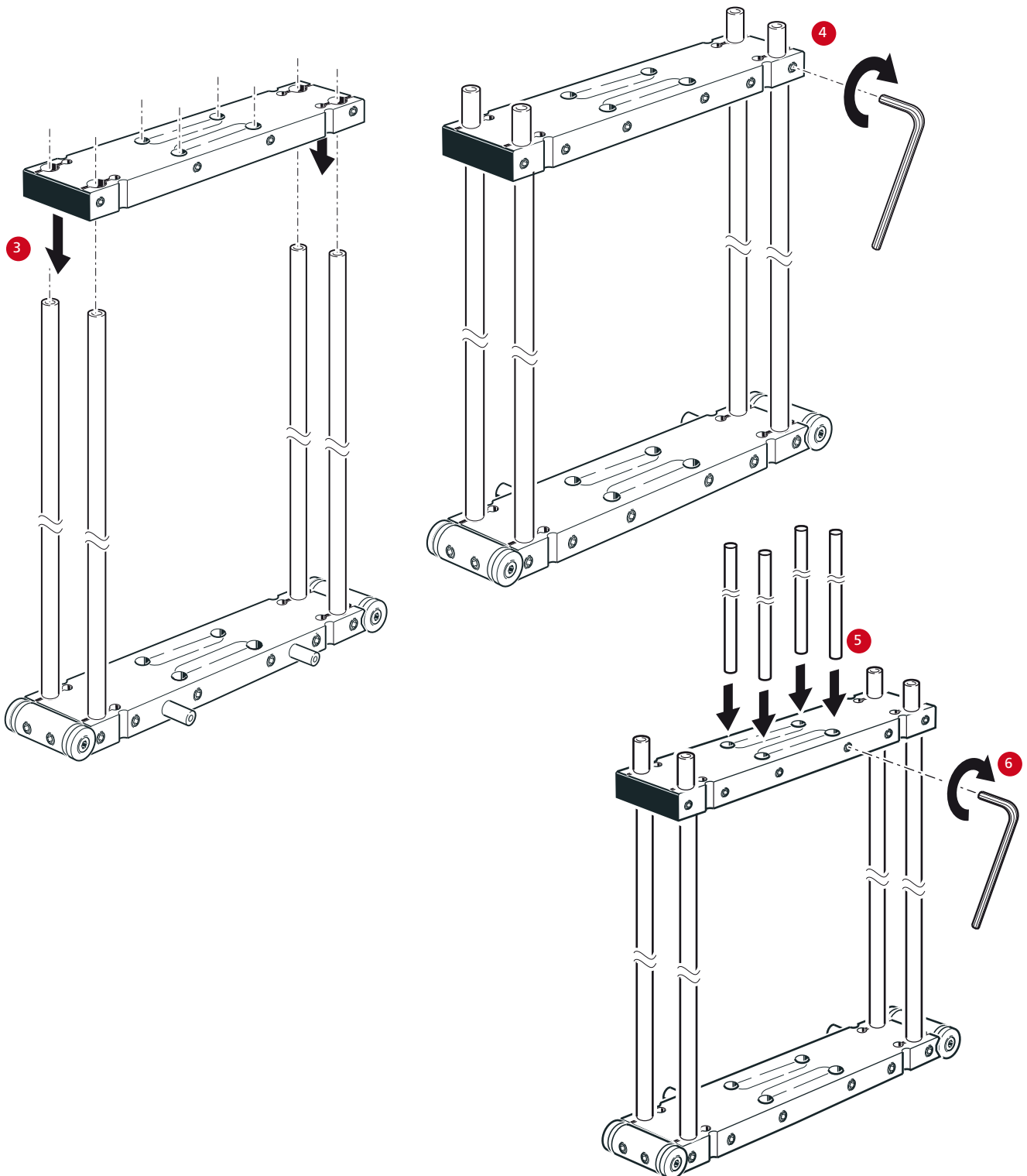
Components and tools

Universal mounting bridge with studs	ALI 2.783-M
Stabilising posts (4 pieces), 500 mm (19 1/2")	ALI 2.777-500
Support posts (4 pieces), 495 mm (19 7/16"), black	ALI 2.179
Intermediate mounting bridge	ALI 2.784-M
Sensor holder	ALI 2.771
Extension posts (3 pieces), 165 mm (6 3/8")	ALI 2.766
Plunger guide plate	ALI 2.772
Plunger, 415 mm (16 5/16")	ALI 2.773-415
Clamping bridge	ALI 2.782-1
Eccentric head	ALI 2.782-2
Adapter	ALI 2.782-3
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

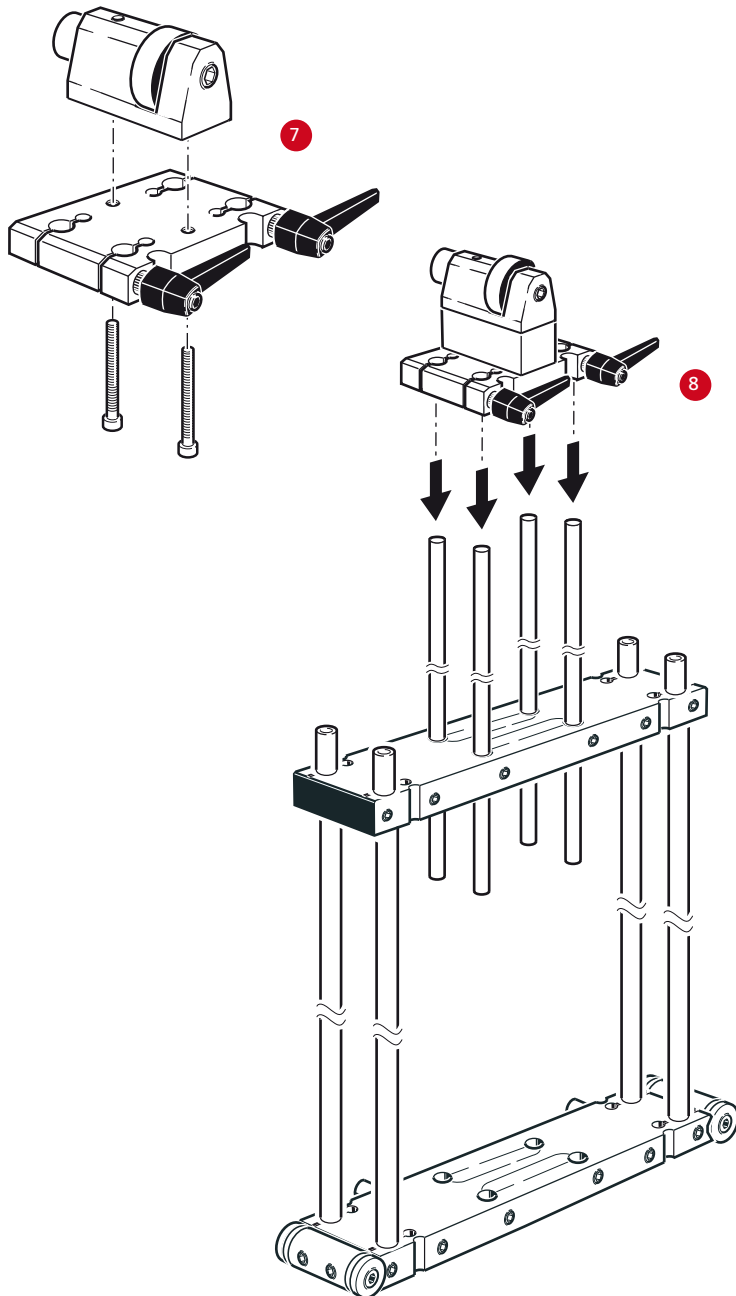
- 1) Insert the four stabilising posts ALI 2.777-500 in the four outside holes of the universal mounting bridge ALI 2.783-M as illustrated below.
- 2) Hold the stabilising posts in place by tightening the four hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.



- 3) Mount the intermediate mounting bridge ALI 2.784-M onto the four stabilising posts ALI 2.777-500 as illustrated below.
- 4) Hold the stabilising posts in place by tightening the four hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.
- 5) Insert the four support posts ALI 2.179 in the holes of the intermediate mounting bridge ALI 2.784-M as illustrated below.
- 6) Hold the stabilising posts in place by tightening the four hexagon socket screws using the 3 mm allen key 0 0739 1056 as shown below.

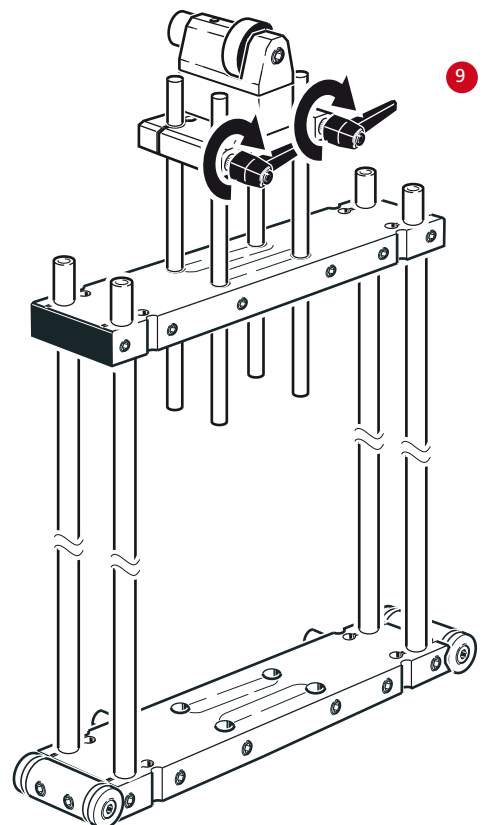


- 7) Mount the eccentric head ALI 2.782-2 and the adapter ALI 2.782-3 onto the clamping bridge ALI 2.782-1. Use the two provided long screws and the 3 mm allen key 0 0739 1056.
- 8) Mount the eccentric head/adapter/clamping bridge assembly put together in (7) above to the four support posts as illustrated below.
- 9) Hold the eccentric head/adapter/clamping plate assembly in position by tightening the clamping levers.

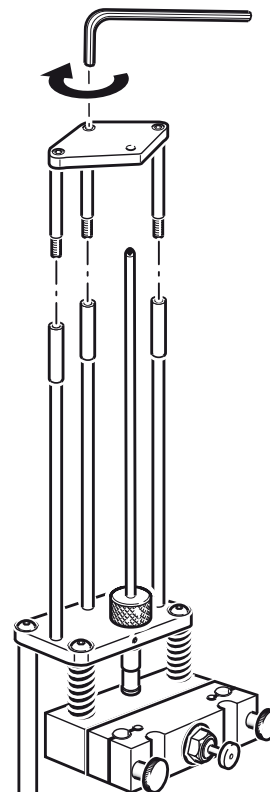
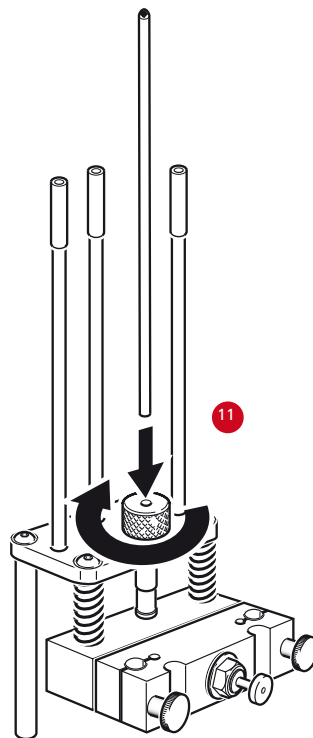
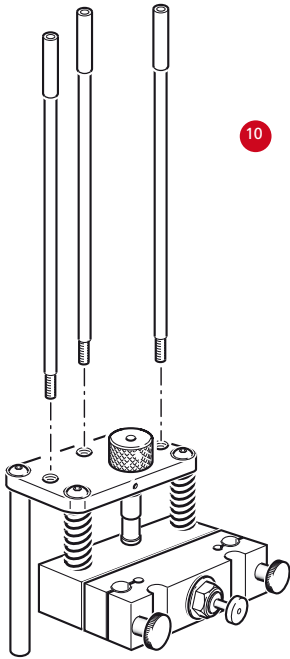


Clamping levers

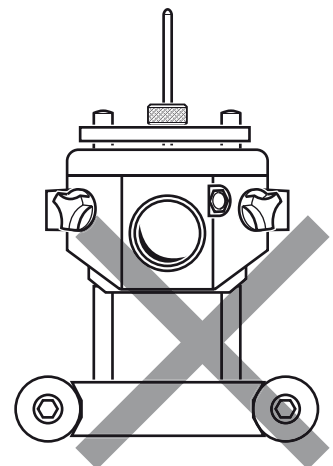
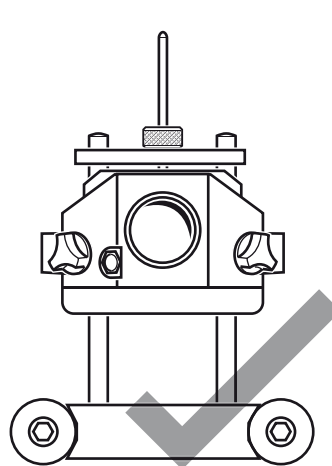
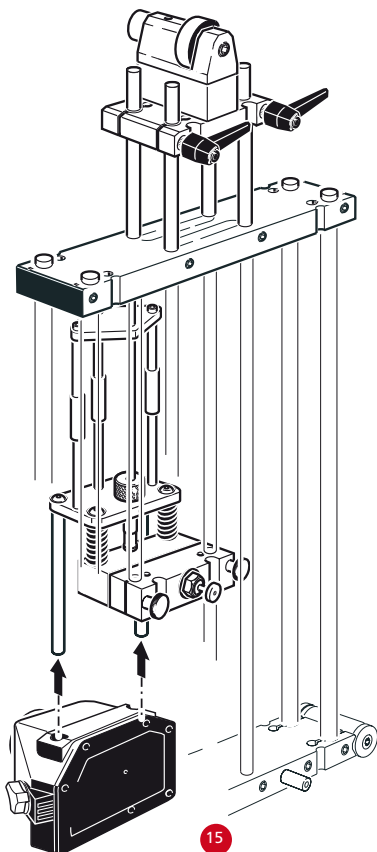
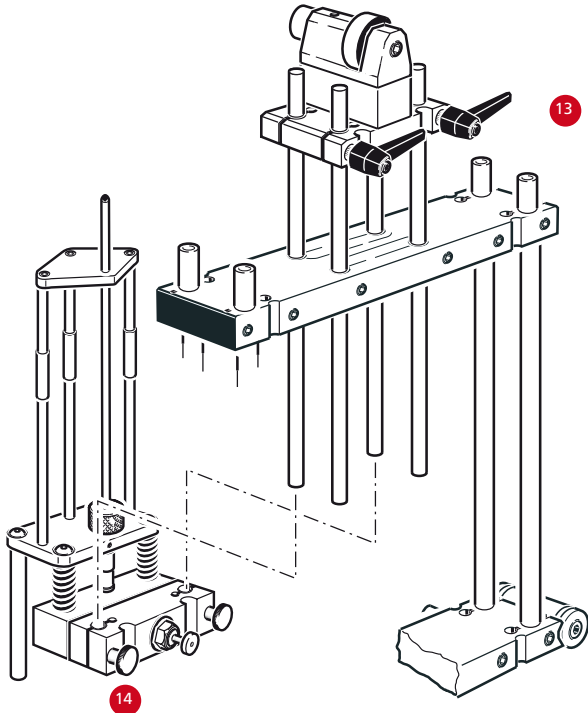
The clamping levers are used to fasten the clamping bridge onto the supports posts without the need of any extra tools. In areas with space limitations, the lift and release feature enables you to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.



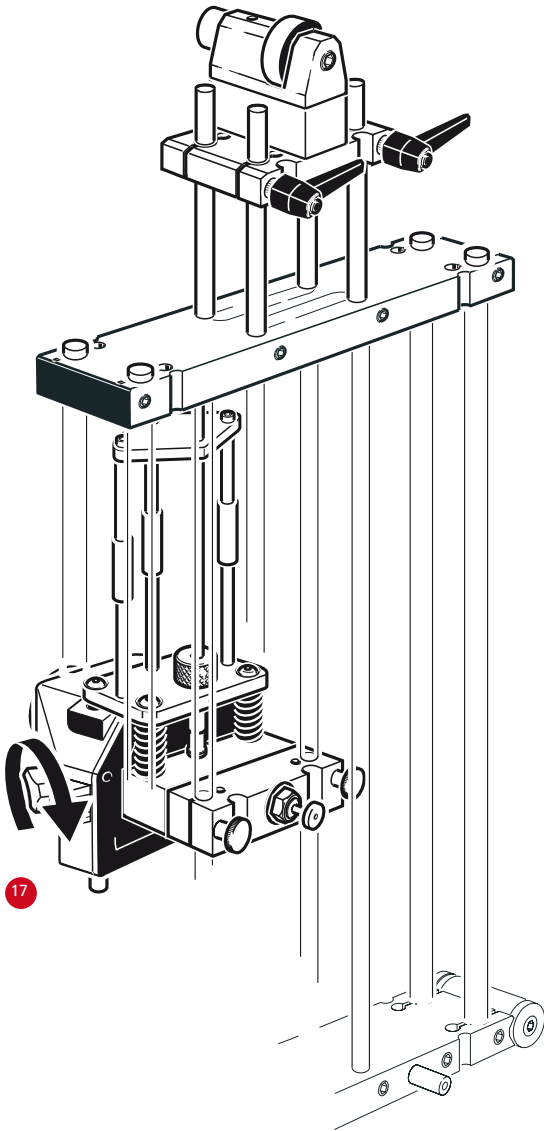
- 10) Screw-in the three extension posts for the plunger guide plate ALI 2.766 to the sensor holder ALI 2.771 as illustrated below.
- 11) Insert the plunger ALI 2.773-415 through the top of the sensor holder ALI 2.771, holding it into place using the thumbwheel as illustrated below.
- 12) Mount the plunger guide plate ALI 2.772 to the extension posts ALI 2.766 using the 4 mm allen key 0 0739 1057 as shown below.



- 13) Mount the sensor holder assembly put together in (10,11,12) above to the universal mounting bridge assembly put together in (1-9) above.)
- 14) Hold the sensor holder assembly in position by tightening the two thumbwheels as shown below.
- 15) Slide the receiver onto the sensor holder as illustrated below, until the top of the receiver makes contact with the top frame of the sensor holder. Pay attention to the correct orientation of the receiver (refer to the diagrams on the **extreme right**).



- 16) Once the receiver is in position, tighten the yellow locking knobs.
- 17) Carry out the laser set-up as described on page 25, then insert the bracket assembly (together with the receiver) as described on pages 26-27.



Additional mounting configurations

Mounting the plunger guide plate to the sensor holder

The plunger guide plate improves the stability of the plunger. In specific bore diameter ranges, the plunger guide plate ALI 2.772 is mounted onto the sensor holder ALI 2.771 without the need of the extension posts. After mounting, tighten the three M4 hex cap screws using the 4 mm allen key 0 0739 1057.

Using the bore surface protectors

To protect bore surfaces from scratches and damages when the universal bridge is mounted on the bore, cover both cylindrical heads using the plastic protection cover 0 0557 0981. If the universal pointer bracket is mounted outside the bore, dress the universal mounting bridge studs with the plastic sleeves 0 0557 0980.

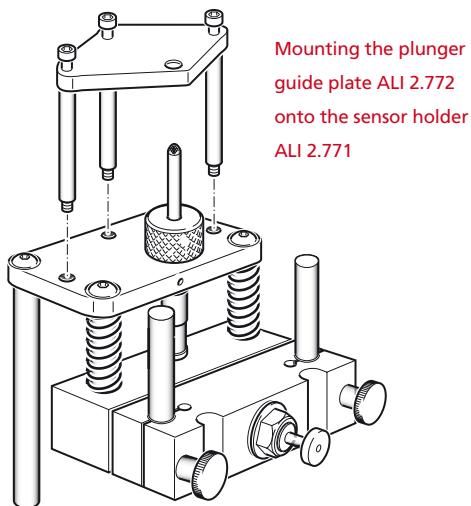
Mounting the anti-torsion bridge

The anti-torsion bridge ALI 2.778 is used to add stability to the universal pointer bracket when two long support posts are used. Slide the extra long support posts through the anti-torsion bridge as shown below, holding it into position by tightening the two thumbwheels.

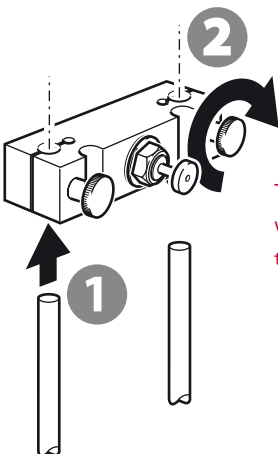
DO NOT tighten any of the thumbwheels unless both anti-torsion bridge holes hold support posts. Tightening either thumbwheel in the absence of any one support post results in permanent deformation of the anti-torsion bridge.



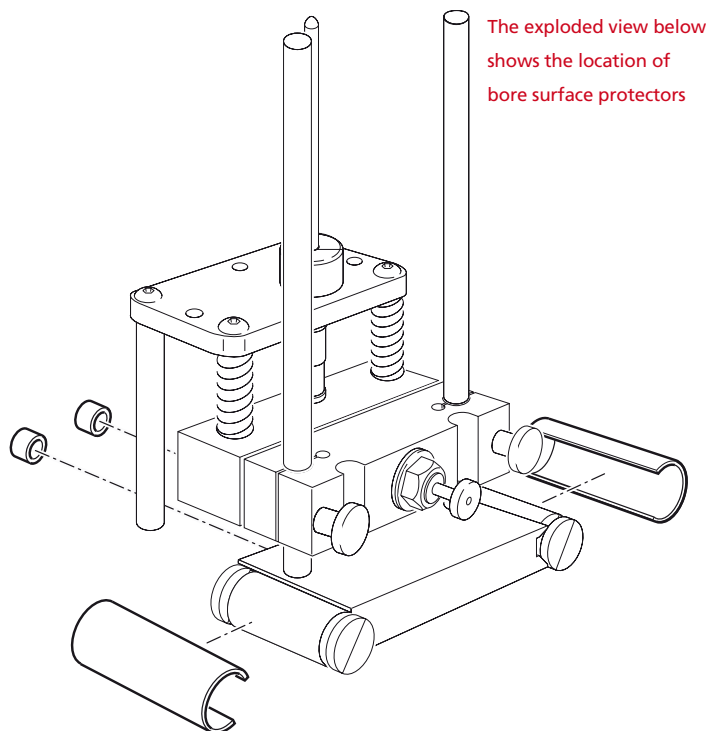
24



Mounting the plunger guide plate ALI 2.772 onto the sensor holder ALI 2.771



The steps to be followed when mounting the anti-torsion bridge.



The exploded view below shows the location of bore surface protectors

Setting up the laser beam

Before actual measurement can begin, the laser beam must be adjusted to the approximate centerline determined by the nearest and furthest bores. This step ensures that the laser beam remains within the sensor measurement range over the entire measurement process.

- 1) The laser is mounted on a bracket to the "left" of the machine, and at least 300mm (12") from the nearest bore to be measured, and roughly central to the bore axis

PRÜFTECHNIK Alignment has a wide selection of magnetic brackets that can be used to mount the laser. Please contact your local representative for other options.



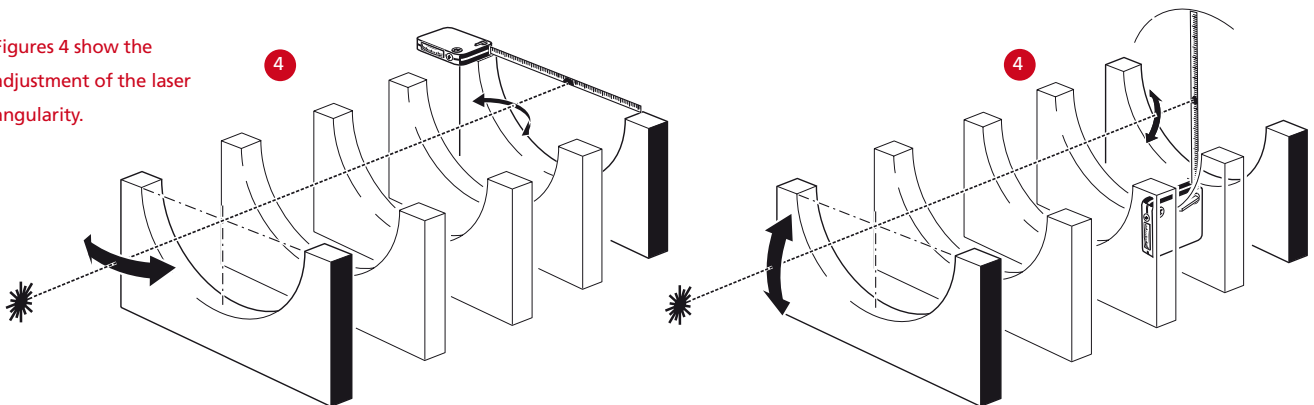
- 2) Switch the laser on, but leave the dust cap on, and allow the laser to warm-up (minimum recommended warm-up time is 20 minutes).

Do not stare into the laser beam!

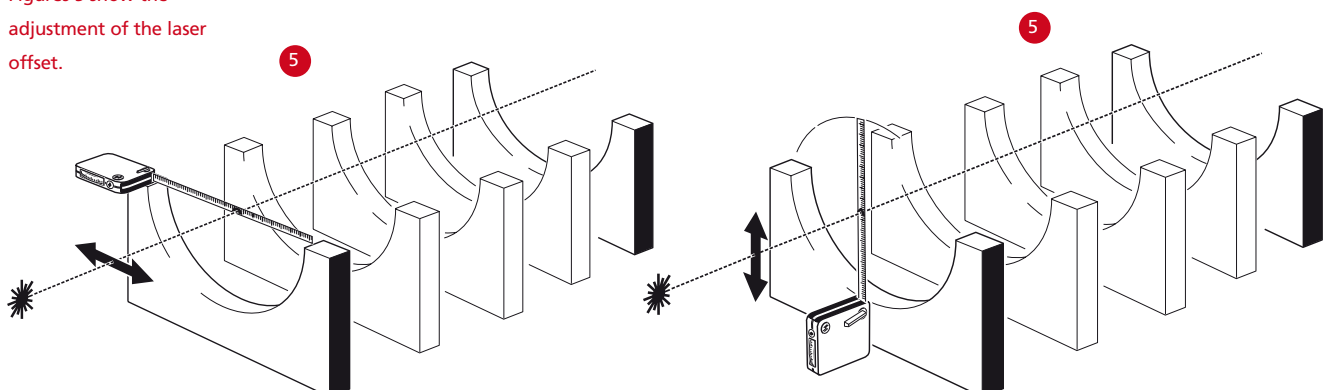


- 3) Adjust the laser thumbwheels so that they are approximately in the middle of their travel ranges.
- 4) Use a tape measure to find the center of the furthest bore. Remove the laser dustcap and adjust the laser angle horizontally and vertically using the yellow thumbwheels so that the beam strikes the tape measure at the center [see figures below].
- 5) Now move tape measure to the bore nearest to the laser, and find its center by moving the laser housing horizontally and vertically [see figures below].
- 6) Repeat steps 4 and 5 until the beam is within 0.5 mm of center at each end.

Figures 4 show the adjustment of the laser angularity.



Figures 5 show the adjustment of the laser offset.



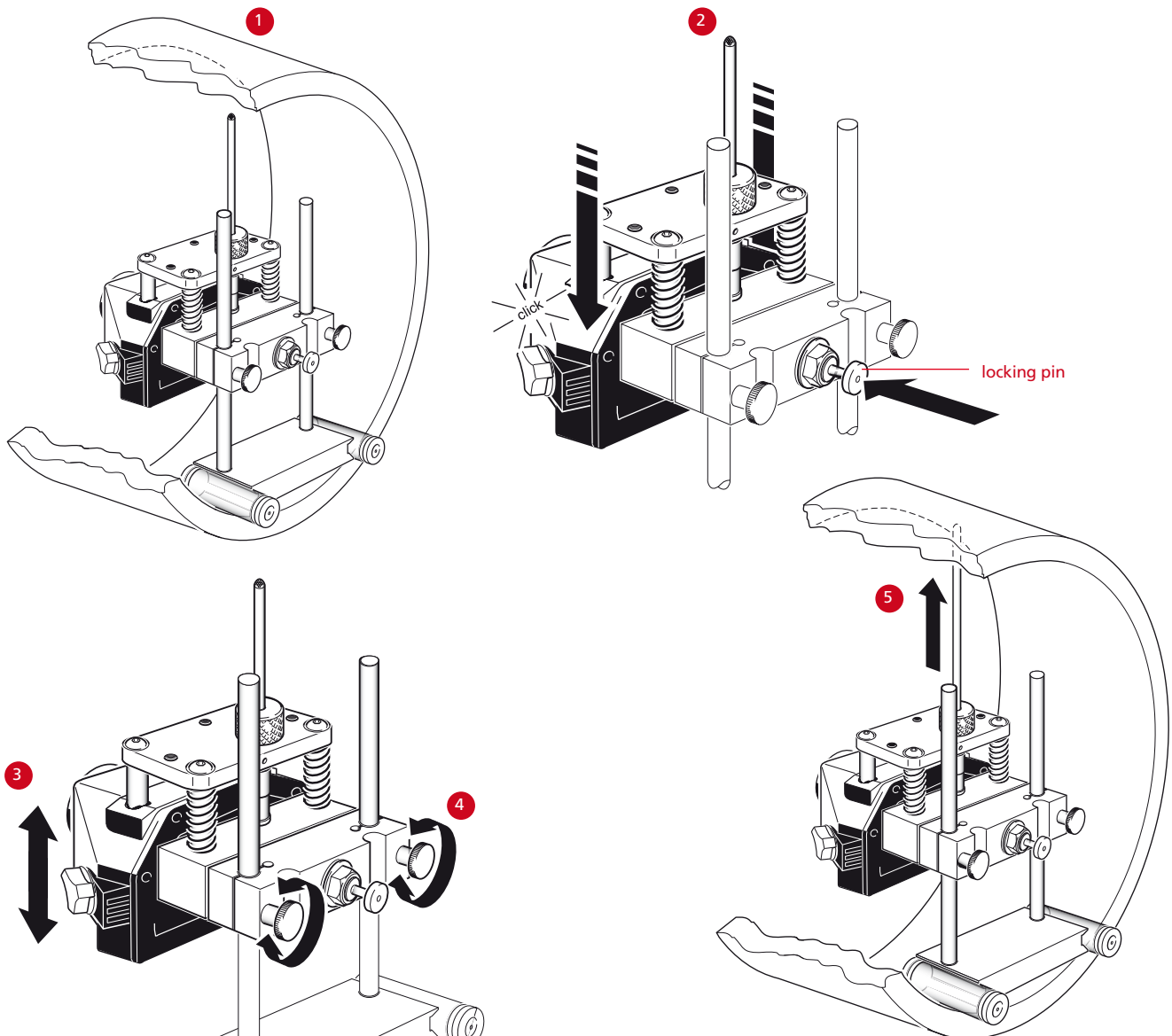
Positioning the universal pointer bracket within a bore

- 1) The universal pointer bracket assembly together with the receiver is inserted in the bore to be measured.
The receiver dust cap should remain on. Information of how to insert the bracket assembly in different-sized magnetic and non-magnetic bores is to be found on pages 28–30.

The magnets used on the two cylindrical heads of the universal mounting bridge are extremely powerful. To avoid personal injury and damage occurring to bore surfaces, extra care must be taken when working on magnetic surfaces. To avoid damage on bore surfaces use the plastic protection covers and the sleeves.



- 2) With the assembly positioned properly within the bore, ensure that the receiver is secure. The red locking pin should be disengaged. Press the top of the sensor holder against the loaded spring and then engage the locking pin by pressing it in the direction shown below.
- 3) Loosen the yellow knobs to be able to slide the receiver along the sensor holder until the laser strikes the receiver dust cap in the centre. When this is achieved, secure the receiver using the yellow locking knobs.
- 4) Secure the sensor holder position with its locking screws.
- 5) Loosen the thumbwheel holding the plunger, and position the plunger such that its tip is approximately 1 mm away from the bore surface. Secure the plunger by tightening the thumbwheel.



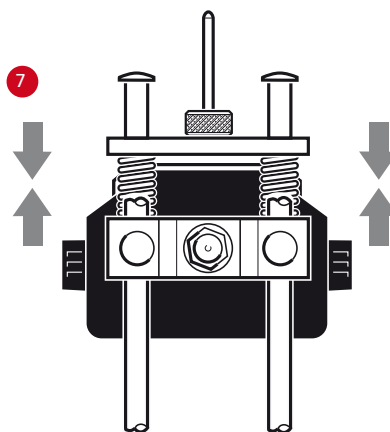
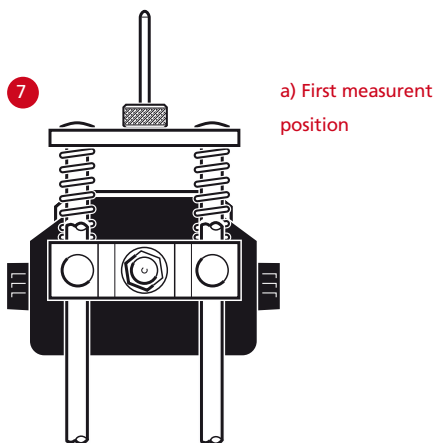
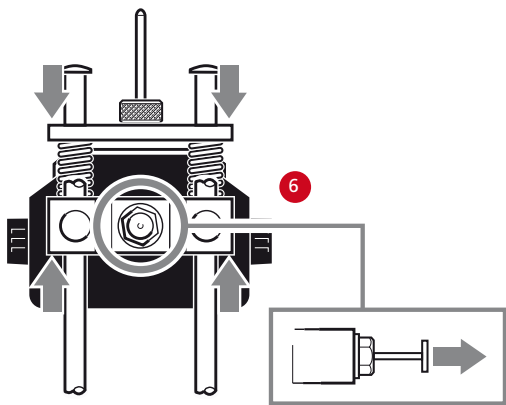
- 6) Lay a firm grip on the sensor holder and disengage the locking pin by pulling it in the direction shown below. The plunger can now be lowered and lifted as required, hence the ability to take measurements around the entire bore.

Bore measurements using the universal pointer bracket are often carried out using the multipoint measurement mode. Other measurement modes that can be used include the static and sweep measurement modes. These modes are described in the respective bore alignment operating instructions

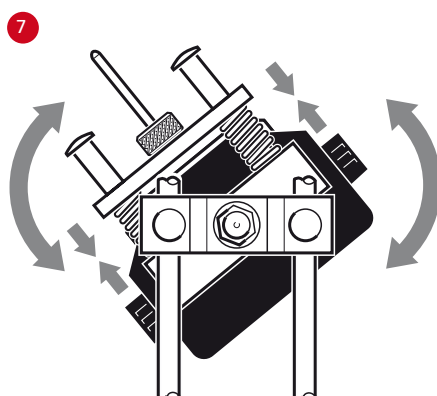


Note

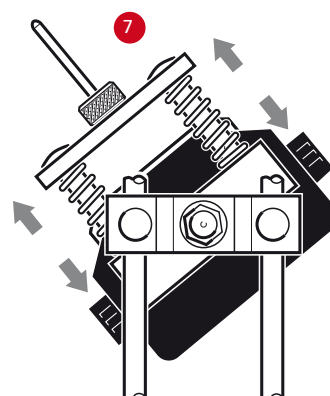
- 7) To rotate the receiver together with the plunger to the next measurement position. The top of the sensor holder must be pressed against the loaded spring and then rotated as shown below.



b) Press sensor holder against the loaded spring



c) Rotate plunger and receiver without scratching the bore



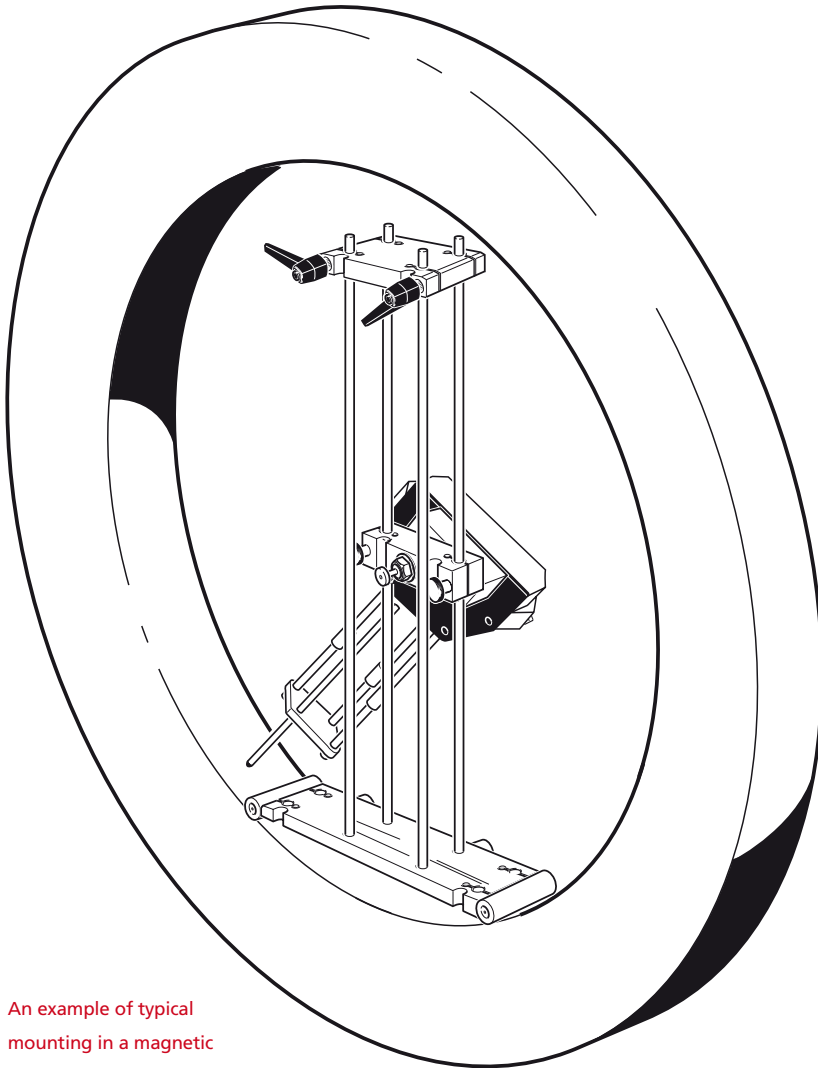
d) Release loaded spring to allow the plunger touch the bore surface for second measurement

Positioning the universal pointer bracket within magnetic bores

The magnets used on the two cylindrical heads of the universal mounting bridge are extremely powerful. To avoid personal injury and damage occurring to bore surfaces, extra care must be taken when working on magnetic surfaces. To avoid damage on bore surfaces use the plastic protection covers and the sleeves.



Slide the universal pointer bracket into the bore to be measured, exercising caution. It is important that the magnetic base seats properly on the bore and is parallel to the bore.

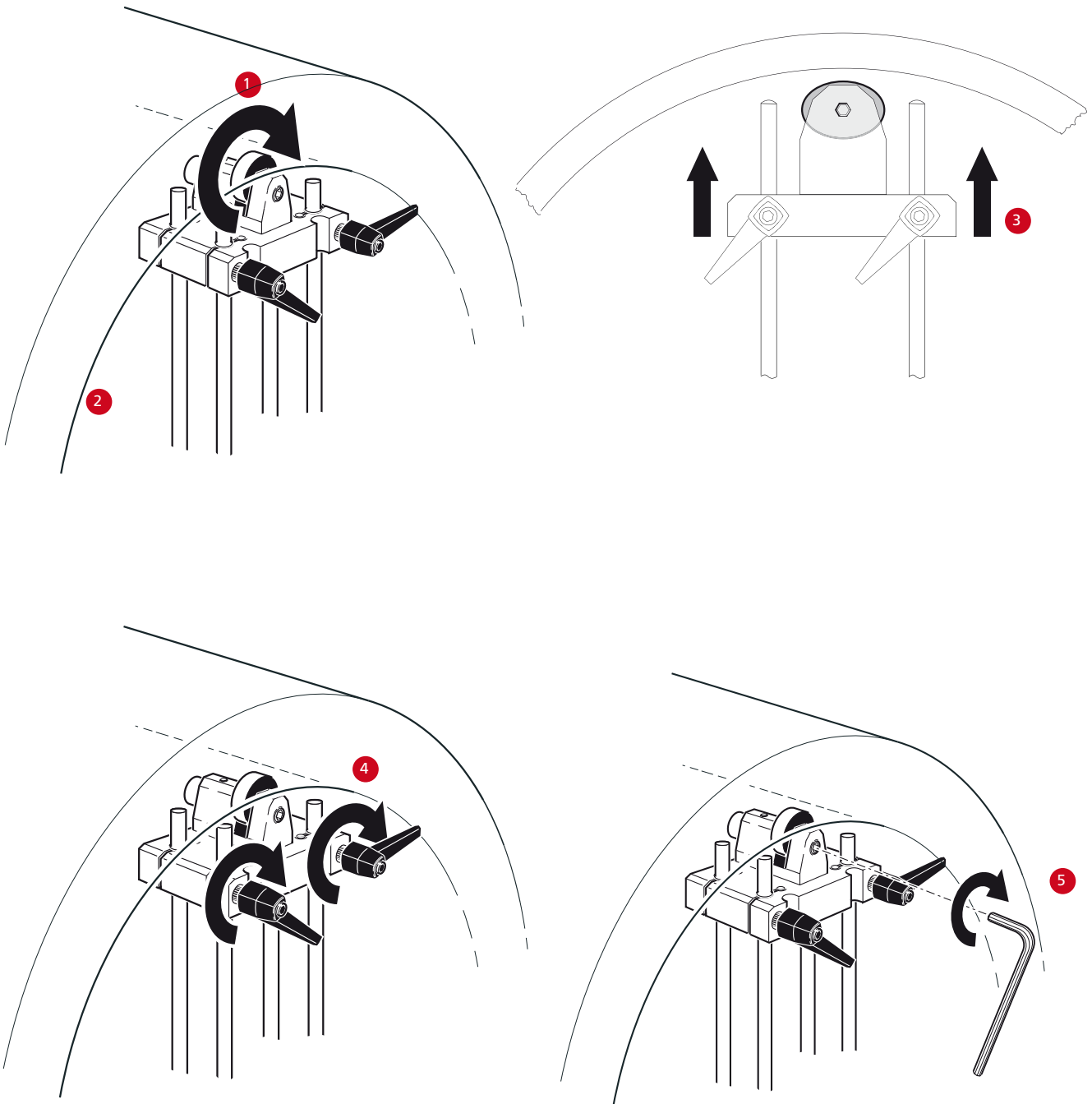


An example of typical mounting in a magnetic bore.

Positioning the universal pointer bracket within non-magnetic bores

To position the universal pointer bracket within a non-magnetic bore, use is made of the eccentric head ALI 2.782-2.

- 1) Rotate the bigger eccentric wheel to the lower position.
- 2) Insert the bracket into the bore exercising caution.
- 3) Loosen the clamping plate levers and push the clamping plate upwards until the bigger eccentric wheel touches the upper bore surface.
- 4) Tighten the clamping plate levers.
- 5) Use the 3 mm allen key 0 0739 1056 to turn the bigger eccentric wheel, such that it rubs tight on the surface of the bore. This ensures that the universal pointer bracket clamps on to the bore and cannot slip off.



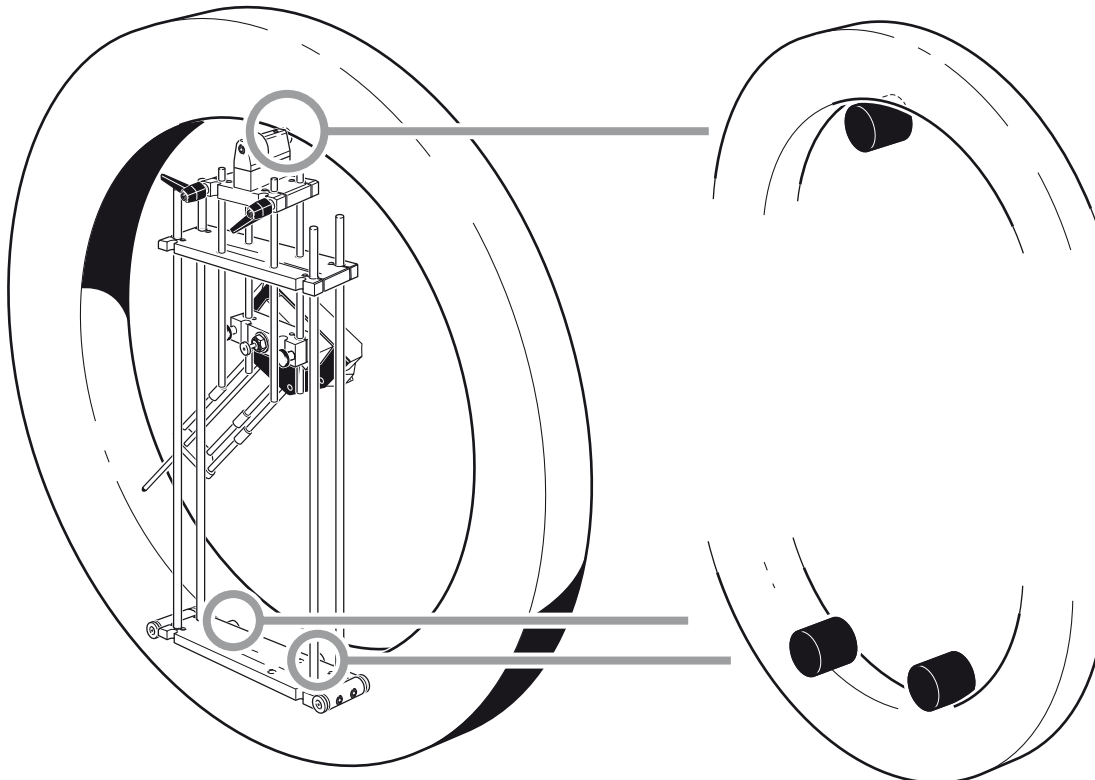
Positioning the universal pointer bracket outside non-magnetic bores

The universal pointer bracket is clamped to the outside of a non-magnetic bore with the aid of the eccentric head ALI 2.782-2 and the studs of either universal mounting bridge ALI 2.783 or ALI 2.783-S.

The magnets used on the two cylindrical heads of the universal mounting bridge are extremely powerful. To avoid personal injury and damage occurring to bore surfaces, extra care must be taken when working on magnetic surfaces. To avoid damage on bore surfaces use the plastic protection covers and the sleeves.



- 1) Rotate the bigger eccentric wheel to the lower position.
- 2) Place the bracket onto the bore with caution.
- 3) Position the bracket such that the universal mounting bridge studs seat on the bore surface.
- 4) Loosen the clamping plate levers and push the clamping plate upwards until the smaller eccentric wheel touches the upper bore surface.
- 5) Tighten the clamping plate levers.
- 6) Use the 3 mm allen key 0 0739 1056 to turn the smaller eccentric wheel, such that it rubs tight on the surface of the bore. This ensures that the universal pointer bracket clamps on to the bore and cannot slip off.



Available packages

The universal pointer brackets are available in six different standard packages dependent on application. The first three packages can be used in magnetic bores only, while the 'F' (Full) packages may be used in the measurement of both magnetic and non-magnetic bores.

Contents of the universal pointer bracket set ALI 2.720 SET

Sensor holder	ALI 2.771
Plunger, 110 mm (4 3/8")	ALI 2.773-110
Plunger, 270 mm / 10 3/4"	ALI 2.773-270
Universal mounting bridge with studs (small) 120–310 mm (4 3/4 – 12 1/8")	ALI 2.783-S
Support post, 70 mm (2 3/4"), black, 2 pieces	ALI 2.177
Support post, 115 mm (4 1/2"), white, 2 pieces	ALI 2.170
Support post, 150 mm (6"), black, 2 pieces	ALI 2.171
Support post, 200 mm (8"), grey, 2 pieces	ALI 2.172
Anti-torsion bridge	ALI 2.778
BORALIGN universal pointer bracket case	ALI 3.889
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

Contents of the universal pointer bracket set ALI 2.721 SET

Sensor holder	ALI 2.771
Plunger guide plate	ALI 2.772
Extension post for plunger guide plate, 3 pieces	ALI 2.766
Plunger, 270 mm (10 3/4")	ALI 2.773-270
Plunger, 415 mm (16 5/16")	ALI 2.773-415
Clamping bridge	ALI 2.782-1
Universal mounting bridge with studs (medium) 290–710 mm (11 9/16 – 27 15/16")	ALI 2.783-M
Support post, 300 mm (12"), yellow, 4 pieces	ALI 2.174
Support post, 495 mm (19 7/16"), black, 4 pieces	ALI 2.179
BORALIGN universal pointer bracket case	ALI 3.889
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

Contents of the universal pointer bracket set ALI 2.722 SET

Sensor holder	ALI 2.771
Plunger guide plate	ALI 2.772
Extension post for plunger guide plate, 3 pieces	ALI 2.766
Plunger, 110 mm (4 3/8")	ALI 2.773-110
Plunger, 270 mm (10 3/4")	ALI 2.773-270
Plunger, 415 mm (16 5/16")	ALI 2.773-415
Clamping bridge	ALI 2.782-1
Universal mounting bridge with studs (small) 120–310 mm (4 3/4 – 12 1/8")	ALI 2.783-S
Universal mounting bridge with studs (medium) 290–710 mm (11 9/16 – 27 15/16")	ALI 2.783-M
Support post, 70 mm (2 3/4"), black, 2 pieces	ALI 2.177
Support post, 115 mm (4 1/2"), white, 2 pieces	ALI 2.170
Support post, 150 mm (6"), black, 2 pieces	ALI 2.171
Support post, 200 mm (8"), grey, 2 pieces	ALI 2.172
Support post, 300 mm (12"), yellow, 4 pieces	ALI 2.174

(continued)

Support post, 495 mm (19 7/16"), black, 2 pieces	ALI 2.179
BORALIGN universal pointer bracket case	ALI 3.889
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

The corresponding 'F' (full) packages possess all parts available in the corresponding universal set plus additional parts that adapt them for use in measuring non-magnetic bores

Mounting the universal pointer bracket from the outside of a bore is only possible using an 'F' package, as they are the only ones that possess the eccentric head which is used for clamping the bracket onto a bore.



Contents of the bore pointer bracket

(magnetic/non-magnetic)	ALI 2.720FSET
Sensor holder	ALI 2.771
Plunger guide plate	ALI 2.772
Plunger, 110 mm (4 3/8")	ALI 2.773-110
Plunger, 270 mm (10 3/4")	ALI 2.773-270
Clamping bridge	ALI 2.782-1
Eccentric head	ALI 2.782-2
Adapter	ALI 2.782-3
Universal mounting bridge with studs (small)	
120–400 mm (4 3/4 – 15 3/4")	ALI 2.783-S
Bore surface protector	ALI 2.783-P
Support post, 70 mm (2 3/4"), black, 4 pieces	ALI 2.177
Support post, 100 mm (3 15/16"), white, 4 pieces	ALI 2.2117
Support post, 150 mm (6"), black, 4 pieces	ALI 2.171
Support post, 200 mm (8"), grey, 4 pieces	ALI 2.172
Support post, 250 mm (9 3/4"), green, 4 pieces	ALI 2.173
Support post, 300 mm (12"), yellow, 4 pieces	ALI 2.174
Support post, 350 mm (13 3/4"), red, 4 pieces	ALI 2.175
Support post, 400 mm (15 3/4"), black, 4 pieces	ALI 2.178
BORALIGN universal pointer bracket case	ALI 3.889
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

Contents of the bore pointer bracket

(magnetic/non-magnetic)	ALI 2.721FSET
Sensor holder	ALI 2.771
Plunger guide plate	ALI 2.772
Extension post for plunger guide plate, 3 pieces	ALI 2.766
Plunger, 270 mm (10 3/4")	ALI 2.773-270
Plunger, 415 mm (16 5/16")	ALI 2.773-415
Clamping bridge	ALI 2.782-1
Eccentric head	ALI 2.782-2
Adapter	ALI 2.782-3
Universal mounting bridge with studs (medium)	
390–810 mm (15 5/16 – 31 7/8")	ALI 2.783-M
Intermediate mounting bridge (medium)	
390–810 mm (15 5/16 – 31 7/8")	ALI 2.784-M
Bore surface protector	ALI 2.783-P
Support post, 350 mm (13 3/4"), green, 4 pieces	ALI 2.175
Support post, 400 mm (15 3/4"), yellow, 4 pieces	ALI 2.178
Support post, 495 mm (19 7/16"), black, 2 pieces	ALI 2.179

(continued)

Stabilising post, 255 mm, 4 pcs.	ALI 2.777-255
Stabilising post, 500 mm, 4 pcs.	ALI 2.777-500
BORALIGN universal pointer bracket case	ALI 3.889
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

Contents of the bore pointer bracket

(magnetic/non-magnetic)	ALI 2.722FSET
Sensor holder	ALI 2.771
Plunger guide plate	ALI 2.772
Extension post for plunger guide plate, 3 pieces	ALI 2.766
Plunger, 110 mm (4 3/8")	ALI 2.773-110
Plunger, 270 mm (10 3/4")	ALI 2.773-270
Plunger, 415 mm (16 5/16")	ALI 2.773-415
Clamping bridge	ALI 2.782-1
Eccentric head	ALI 2.782-2
Adapter	ALI 2.782-3
Universal mounting bridge with studs (small)	
120–400 mm (4 3/4 – 15 3/4")	ALI 2.783-S
Universal mounting bridge with studs (medium)	
390–810 mm (15 5/16 – 31 7/8")	ALI 2.783-M
Intermediate mounting bridge (medium)	
390–810 mm (15 5/16 – 31 7/8")	ALI 2.784-M
Bore surface protector	ALI 2.783-P
Support post, 70 mm (2 3/4"), black, 4 pieces	ALI 2.177
Support post, 100 mm (3 15/16"), white, 4 pieces	ALI 2.2117
Support post, 150 mm (6"), black, 4 pieces	ALI 2.171
Support post, 200 mm (8"), grey, 4 pieces	ALI 2.172
Support post, 250 mm (9 3/4"), green, 4 pieces	ALI 2.173
Support post, 300 mm (12"), yellow, 4 pieces	ALI 2.174
Support post, 350 mm (13 3/4"), red, 4 pieces	ALI 2.175
Support post, 400 mm (15 3/4"), black, 4 pieces	ALI 2.178
Support post, 495 mm (19 7/16"), black, 4 pieces	ALI 2.179
Stabilising post, 255 mm, 4 pcs.	ALI 2.777-255
Stabilising post, 500 mm, 4 pcs.	ALI 2.777-500
BORALIGN universal pointer bracket case	ALI 3.889
Allen key, 3 mm (1/8")	0 0739 1056
Allen key, 4 mm (5/32")	0 0739 1057

Application based configuration tables

An overview of the bracket sets and related accessories for each bore diameter

ALI 2.720 SET

This set is suitable for measuring magnetic bores with diameters ranging from 120 mm to 400 mm.

Bore diameter	120 -160 mm	150 - 230 mm	180 - 280 mm	275 - 300 mm	290 - 400 mm
Support posts	2 pcs / 70 mm ALI 2.177	2 pcs /115 mm ALI 2.170	2 pcs / 150 mm ALI 2.171	2 pcs / 150 mm ALI 2.171	2 pcs / 200 mm ALI 2.172
Mounting bridge	1 no. / ALI 2.783-S				
Plunger	1 no. / 110 mm / ALI 2.773-110			1 no. / 270 mm / ALI 2.733-270	
Sensor holder	1 no. / ALI 2.771				
Anti-torsion bridge	---			1 no. / ALI 2.778	

ALI 2.721 SET

This set is suitable for measuring magnetic bores with diameters ranging from 390 mm to 810 mm.

Bore diameter	390 - 500 mm	420 - 620 mm	575 - 810 mm
Support posts	4 pcs / 300 mm / ALI 2.174		4 pcs / 495 mm ALI 2.179
Mounting bridge	1 no. / ALI 2.783-M		
Plunger	1 no. / 270 mm ALI 2.773-270	1 no. / 415 mm / ALI 2.773-415	
Plunger guide plate	1 no. / ALI 2.772		
Sensor holder	1 no. / ALI 2.771		
Extension posts	---	3 pcs / ALI 2.766	
Clamping bridge	1 no. / ALI 2.782-1		

ALI 2.722 SET

This set is suitable for measuring magnetic bores with diameters ranging from 120 mm to 810 mm.

Bore diameter 120 – 400 mm

Bore diameter	120 -160 mm	150 - 230 mm	180 - 280 mm	275 - 300 mm	290 - 400 mm
Support posts	2 pcs / 70 mm ALI 2.177	2 pcs /115 mm ALI 2.170	2 pcs / 150 mm ALI 2.171	2 pcs / 150 mm ALI 2.171	2 pcs / 200 mm ALI 2.172
Mounting bridge	1 no. / ALI 2.783-S				
Plunger	1 no. / 110 mm / ALI 2.773-110			1 no. / 270 mm / ALI 2.733-270	
Sensor holder	1 no. / ALI 2.771				
Anti-torsion bridge	---			1 no. / ALI 2.778	

Bore diameter 390 – 810 mm

Bore diameter	390 - 500 mm	420 - 620 mm	575 - 810 mm
Support posts	4 pcs / 300 mm / ALI 2.174		4 pcs / 495 mm ALI 2.179
Mounting bridge	1 no. / ALI 2.783-M		
Plunger	1 no. / 270 mm ALI 2.773-270	1 no. / 415 mm / ALI 2.773-415	
Plunger guide plate	1 no. / ALI 2.772		
Sensor holder	1 no. / ALI 2.771		
Extension posts	---	3 pcs / ALI 2.766	
Clamping bridge	1 no. / ALI 2.782-1		

ALI 2.720F SET

This set is suitable for measuring both magnetic and non-magnetic bores with diameters ranging from 120 mm to 400 mm.

Magnetic bores with diameters 120 – 210 mm

Bore diameter	120 -130 mm	130 - 155 mm	155 - 170 mm	170 - 210 mm
Support posts	4 pcs / 70 mm ALI 2.177	4 pcs / 100 mm / ALI 2.2117		4 pcs / 150 mm ALI 2.171
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110			
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			

Non-magnetic bores with diameters 120 – 210 mm

Bore diameter	120 -130 mm	130 - 155 mm	155 - 170 mm	170 - 210 mm
Support posts	4 pcs / 70 mm ALI 2.177	4 pcs / 100 mm / ALI 2.2117		4 pcs / 150 mm ALI 2.171
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110			
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			
Eccentric head	1 no. / ALI 2.782-2			
Adapter	---		1 no. / ALI 2.782-3	

Magnetic bores with diameters 210 – 400 mm

Bore diameter	210 -265 mm	265 - 310 mm	310 - 365 mm	365 - 400 mm
Support posts	4 pcs / 200 mm ALI 2.172	4 pcs / 250 mm ALI 2.173	4 pcs / 300 mm ALI 2.174	4 pcs / 350 mm ALI 2.175
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110		1 no. / 270 mm / ALI 2.773-270	
Plunger guide plate	---		1 no. / ALI 2.772	
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			

Non-magnetic bores with diameters 210 – 400 mm

Bore diameter	210 -265 mm	265 - 310 mm	310 - 365 mm	365 - 400 mm
Support posts	4 pcs / 200 mm ALI 2.172	4 pcs / 250 mm ALI 2.173	4 pcs / 300 mm ALI 2.174	4 pcs / 350 mm ALI 2.175
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110		1 no. / 270 mm / ALI 2.773-270	
Plunger guide plate	---		1 no. / ALI 2.772	
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			
Eccentric head	1 no. / ALI 2.782-2			
Adapter	1 no. / ALI 2.782-3			

ALI 2.721F SET

This set is suitable for measuring both magnetic and non-magnetic bores with diameters ranging from 390 mm to 810 mm.

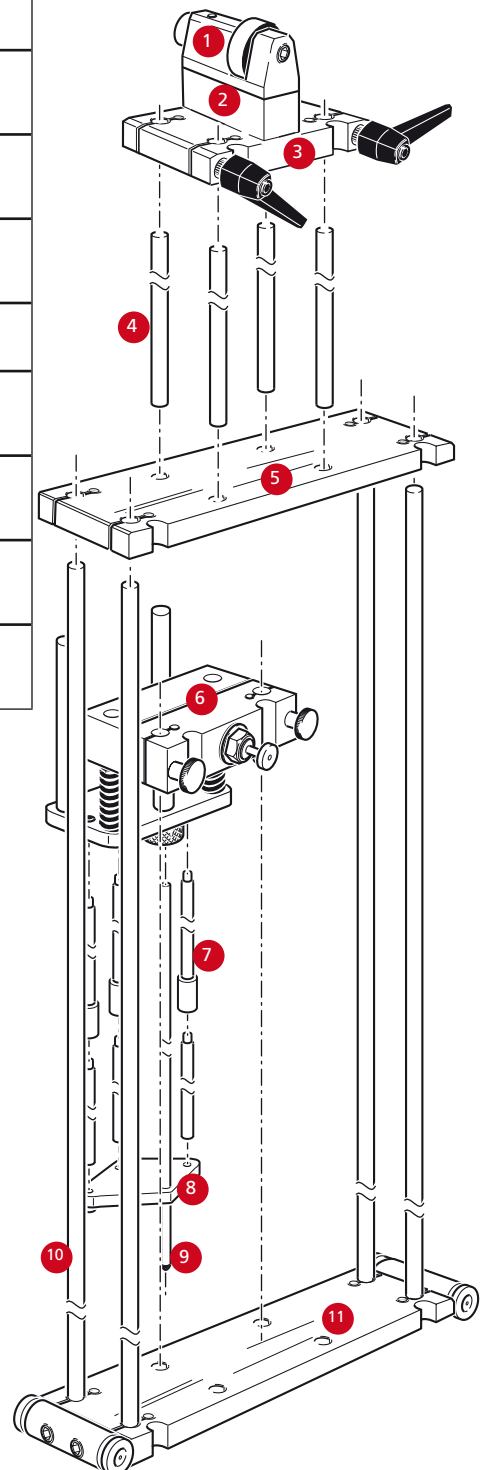
Magnetic bores with diameters 390 – 810 mm

Bore diameter	390 - 480 mm	420 - 510 mm	510 - 565 mm	565 - 810 mm
Support posts	4 pcs / 350 mm ALI 2.175	4 pcs / 400 mm ALI 2.178	4 pcs / 495 mm / ALI 2.179	
Mounting bridge	1 no. / ALI 2.783-M			
Plunger	1 no. / 270 mm / ALI 2.773-270		1 no. / 415 mm / ALI 2.773-415	
Plunger guide plate	1 no. / ALI 2.772			
Extension posts	---		3 pcs / ALI 2.766	
Stabilising post	4 pcs / 255 mm / ALI 2.777-255		4 pcs / 500 mm / ALI 2.777-500	
Sensor holder	1 no. / ALI 2.771			
Intermediate mounting bridge	1 no. / ALI 2.784-M			
Clamping bridge	1 no. / ALI 2.782-1			

Non-magnetic bores with diameters 390 – 810 mm

Bore diameter	390 - 480 mm	420 - 510 mm	510 - 565 mm	565 - 810 mm
Support posts	4 pcs / 350 mm ALI 2.175	4 pcs / 400 mm ALI 2.178	4 pcs / 495 mm / ALI 2.179	
Mounting bridge	1 no. / ALI 2.783-M			
Plunger	1 no. / 270 mm / ALI 2.773-270		1 no. / 415 mm / ALI 2.773-415	
Plunger guide plate	1 no. / ALI 2.772			
Extension posts	---		3 pcs / ALI 2.766	
Stabilising post	4 pcs / 255 mm / ALI 2.777-255		4 pcs / 500 mm / ALI 2.777-500	
Sensor holder	1 no. / ALI 2.771			
Intermediate mounting bridge	1 no. / ALI 2.784-M			
Clamping bridge	1 no. / ALI 2.782-1			
Eccentric head	1 no. / ALI 2.782-2			
Adapter	1 no. / ALI 2.782-3			

- 1 ▶ Eccentric head ALI 2.782-2
- 2 ▶ Adapter ALI 2.782-3
- 3 ▶ Clamping bridge ALI 2.782-1
- 4 ▶ Support posts: supplied in following lengths – 70, 100, 150, 200, 250, 300, 350, 400 and 495 mm
- 5 ▶ Intermediate mounting bridge ALI 2.784-S / ALI 2.784-M
- 6 ▶ Sensor holder ALI 2.771
- 7 ▶ Extension post ALI 2.766
- 8 ▶ Plunger guide plate ALI 2.772
- 9 ▶ Plunger ALI 2.773-110 / ALI 2.773-270 / ALI 2.773-415
- 10 ▶ Stabilising posts: supplied in lengths of 255 and 500 mm
- 11 ▶ Universal mounting bridge with studs ALI 2.783-S / ALI 2.783-M



A typical assembly for the measurement of bores with large diameters.

ALI 2.722F SET

This set is suitable for measuring both magnetic and non-magnetic bores with diameters ranging from 120 mm to 810 mm.

Magnetic bores with diameters 120 – 210 mm

Bore diameter	120 -130 mm	130 - 155 mm	155 - 170 mm	170 - 210 mm
Support posts	4 pcs / 70 mm ALI 2.177	4 pcs / 100 mm / ALI 2.2117		4 pcs / 150 mm ALI 2.171
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110			
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			

Non-magnetic bores with diameters 120 – 210 mm

Bore diameter	120 -130 mm	130 - 155 mm	155 - 170 mm	170 - 210 mm
Support posts	4 pcs / 70 mm ALI 2.177	4 pcs / 100 mm / ALI 2.2117		4 pcs / 150 mm ALI 2.171
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110			
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			
Eccentric head	1 no. / ALI 2.782-2			
Adapter	---		1 no. / ALI 2.782-3	

Magnetic bores with diameters 210 – 400 mm

Bore diameter	210 -265 mm	265 - 310 mm	310 - 365 mm	365 - 400 mm
Support posts	4 pcs / 200 mm ALI 2.172	4 pcs / 250 mm ALI 2.173	4 pcs / 300 mm ALI 2.174	4 pcs / 350 mm ALI 2.175
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110		1 no. / 270 mm / ALI 2.773-270	
Plunger guide plate	---		1 no. / ALI 2.772	
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			

Non-magnetic bores with diameters 210 – 400 mm

Bore diameter	210 -265 mm	265 - 310 mm	310 - 365 mm	365 - 400 mm
Support posts	4 pcs / 200 mm ALI 2.172	4 pcs / 250 mm ALI 2.173	4 pcs / 300 mm ALI 2.174	4 pcs / 350 mm ALI 2.175
Mounting bridge	1 no. / ALI 2.783-S			
Plunger	1 no. / 110 mm / ALI 2.773-110		1 no. / 270 mm / ALI 2.773-270	
Plunger guide plate	---		1 no. / ALI 2.772	
Sensor holder	1 no. / ALI 2.771			
Clamping bridge	1 no. / ALI 2.782-1			
Eccentric head	1 no. / ALI 2.782-2			
Adapter	1 no. / ALI 2.782-3			

Magnetic bores with diameters 390 – 810 mm

Bore diameter	390 - 480 mm	420 - 510 mm	510 - 565 mm	565 - 810 mm
Support posts	4 pcs / 350 mm ALI 2.175	4 pcs / 400 mm ALI 2.178	4 pcs / 495 mm / ALI 2.179	
Mounting bridge	1 no. / ALI 2.783-M			
Plunger	1 no. / 270 mm / ALI 2.773-270		1 no. / 415 mm / ALI 2.773-415	
Plunger guide plate	1 no. / ALI 2.772			
Extension posts	---		3 pcs / ALI 2.766	
Stabilising post	4 pcs / 255 mm / ALI 2.777-255		4 pcs / 500 mm / ALI 2.777-500	
Sensor holder	1 no. / ALI 2.771			
Intermediate mounting bridge	1 no. / ALI 2.784-M			
Clamping bridge	1 no. / ALI 2.782-1			

Non-magnetic bores with diameters 390 – 810 mm

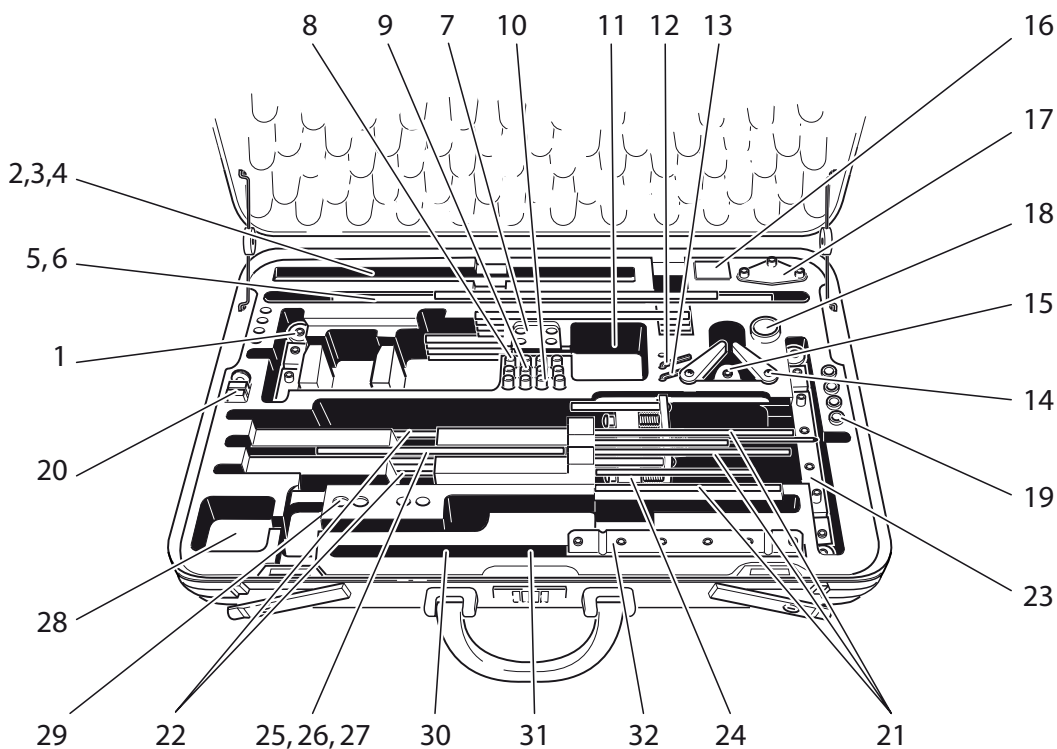
Bore diameter	390 - 480 mm	420 - 510 mm	510 - 565 mm	565 - 810 mm
Support posts	4 pcs / 350 mm ALI 2.175	4 pcs / 400 mm ALI 2.178	4 pcs / 495 mm / ALI 2.179	
Mounting bridge	1 no. / ALI 2.783-M			
Plunger	1 no. / 270 mm / ALI 2.773-270		1 no. / 415 mm / ALI 2.773-415	
Plunger guide plate	1 no. / ALI 2.772			
Extension posts	---		3 pcs / ALI 2.766	
Stabilising post	4 pcs / 255 mm / ALI 2.777-255		4 pcs / 500 mm / ALI 2.777-500	
Sensor holder	1 no. / ALI 2.771			
Intermediate mounting bridge	1 no. / ALI 2.784-M			
Clamping bridge	1 no. / ALI 2.782-1			
Eccentric head	1 no. / ALI 2.782-2			
Adapter	1 no. / ALI 2.782-3			

Storage and transport case

All the parts of the universal pointer bracket are delivered in an extremely robust transport case ALI 3.889. The case is both airtight and waterproof.

Dimensions (H x W x D) 400 x 570 x 195 mm / 15 3/4" x 22 7/16" x 7 11/16"
 Weight (empty) 9.9 kg

Placement of parts in ALI 3.889 case

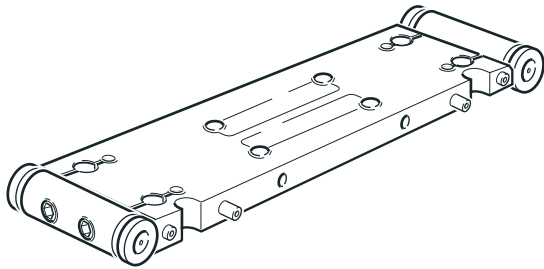


1 Universal mounting bridge with studs	ALI 2.783-S	17 Plunger guide plate	ALI 2.772
2 Stabilising post, 500 mm	ALI 2.777-500	18 Plastic protection covers	0 0557 0981
3 Support post, 400 mm	ALI 2.178	19 Plastic sleeves	0 0557 0980
4 Stabilising post, 255 mm (placed above the 400 mm stabilising post)	ALI 2.777-255	20 Anti-torsion bridge	ALI 2.778
5 Support post, 300 mm	ALI 2.174	21 Extension post	ALI 2.766
6 Support post, 350 mm	ALI 2.175	22 Support post, 495 mm	ALI 2.179
7 Plunger, 110 mm	ALI 2.773-110	23 Universal mounting bridge with studs	ALI 2.783-M
8 Support post, 70 mm	ALI 2.177	24 Sensor holder	ALI 2.771
9 Support post, 100 mm	ALI 2.2117	25 Plunger, 415 mm	ALI 2.773-415
10 Support post, 115 mm	ALI 2.170	26 Support post, 200 mm	ALI 2.172
11 Screws		27 Support post, 250 mm	ALI 2.173
12 Allen key, 3 mm	0 0739 1056	28 Plastic protection covers	0 0557 0981
13 Allen key, 4 mm	0 0739 1057	29 Plastic sleeves	0 0557 0980
14 Clamping bridge	ALI 2.782-1	30 Support post, 150mm	ALI 2.171
15 Eccentric head	ALI 2.782-2	31 Plunger, 270 mm	ALI 2.773-270
16 Adapter	ALI 2.782-3	32 Intermediate mounting bridge	ALI 2.784-M

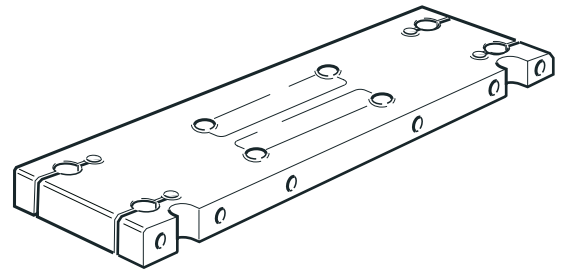
List of part numbers

Part number	Description
▶ 0 0557 0980	Plastic sleeves, 6 pieces
▶ 0 0557 0981	Plastic protection covers, 4 pieces
▶ 0 0739 1056	Allen key, 3 mm (1/8")
▶ 0 0739 1057	Allen key, 4 mm (5/32")
▶ ALI 2.177	Support post, 70 mm (2 3/4"), black, 4 pieces
▶ ALI 2.2117	Support post, 100 mm (3 15/16"), white, 4 pieces
▶ ALI 2.170	Support post, 115 mm (4 1/2"), black, 4 pieces
▶ ALI 2.171	Support post, 150 mm (6"), black, 4 pieces
▶ ALI 2.172	Support post, 200 mm (8"), grey, 4 pieces
▶ ALI 2.173	Support post, 250 mm (9 3/4"), green, 4 pieces
▶ ALI 2.174	Support post, 300 mm (12"), yellow, 4 pieces
▶ ALI 2.175	Support post, 350 mm (13 3/4"), red, 4 pieces
▶ ALI 2.178	Support post, 400 mm (15 3/4"), black, 4 pieces
▶ ALI 2.179	Support post, 495 mm (19 7/16"), black, 4 pieces
▶ ALI 2.766	Extension post for plunger guide plate, 3 pieces
▶ ALI 2.771	Sensor holder
▶ ALI 2.772	Plunger guide plate
▶ ALI 2.773-110	Plunger, 110 mm (4 3/8")
▶ ALI 2.773-270	Plunger, 270 mm (10 3/4")
▶ ALI 2.773-415	Plunger, 415 mm (16 5/16")
▶ ALI 2.777-255	Stabilising post, 255 mm, 4 pcs.
▶ ALI 2.777-500	Stabilising post, 500 mm, 4 pcs.
▶ ALI 2.778	Anti-torsion bridge
▶ ALI 2.782-1	Clamping bridge
▶ ALI 2.782-2	Eccentric head
▶ ALI 2.782-3	Adapter
▶ ALI 2.783-S	Universal mounting bridge with studs, 120–400 mm (4 3/4 – 15 3/4")
▶ ALI 2.783-M	Universal mounting bridge with studs, 390–810 mm (15 5/16 – 31 7/8")
▶ ALI 2.783-P	Bore surface protector
▶ ALI 2.784-M	Intermediate mounting bridge, 390–810 mm (15 5/16 – 31 7/8")
▶ ALI 3.889	Universal pointer bracket case

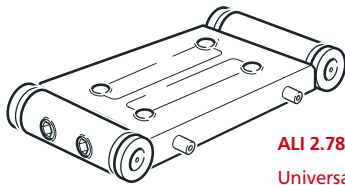
Overview of bracket components



ALI 2.783-M
Universal mounting
bridge with studs
(medium)



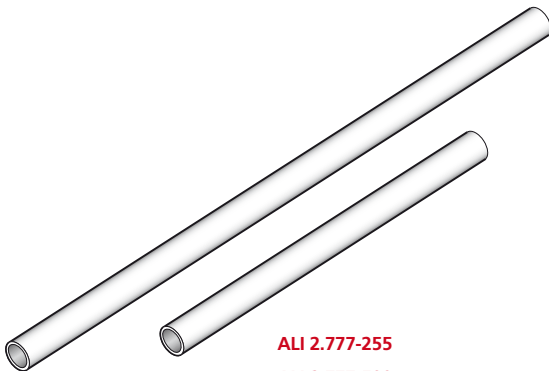
ALI 2.784-M
Intermediate mounting
bridge (medium)



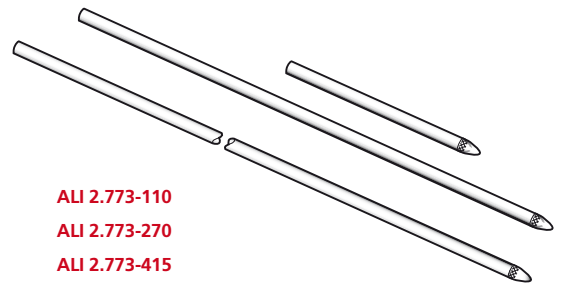
ALI 2.783-S
Universal mounting
bridge with studs (small)



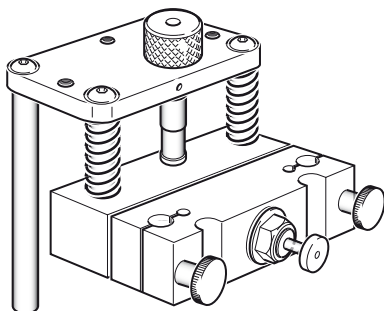
ALI 2.17x
ALI 2.2117
Support posts set



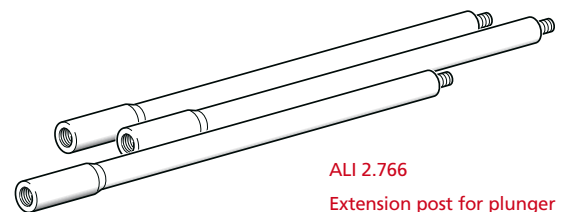
ALI 2.777-255
ALI 2.777-500
Stabilising posts



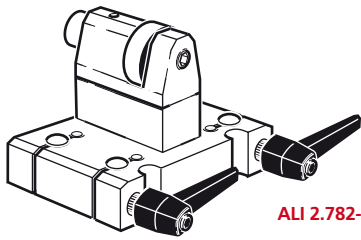
ALI 2.773-110
ALI 2.773-270
ALI 2.773-415
Plunger



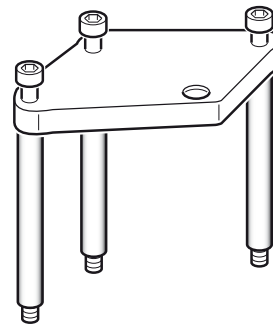
ALI 2.771
Sensor holder



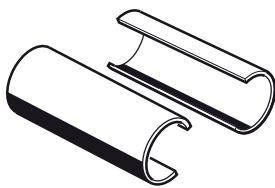
ALI 2.766
Extension post for plunger
guide plate, 3 pieces



ALI 2.782-2
ALI 2.782-3
ALI 2.782-1
Eccentric head
Adapter
Clamping bridge



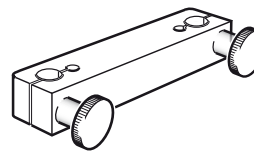
ALI 2.772
Plunger guide plate



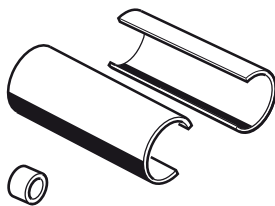
0 0557 0981
Plastic protection covers



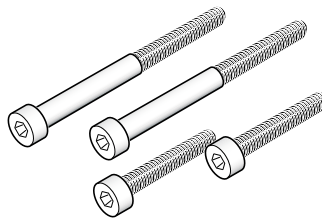
0 0557 0980
Plastic sleeves



ALI 2.778
Anti-torsion bridge



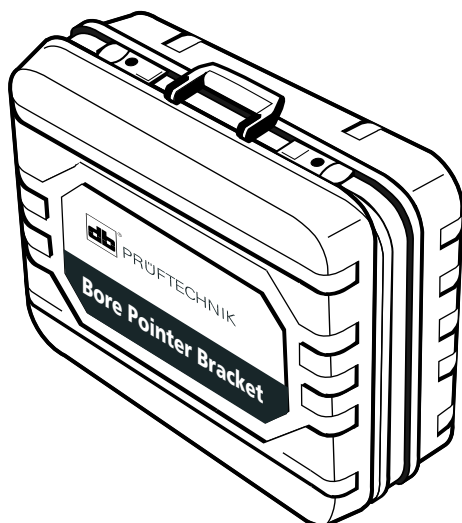
ALI 2.783-P
Bore surface protector



Screws



0 0739 1056
0 0739 1057
Allen key,



ALI 3.889
Universal pointer bracket
case

Index

Symbole

- 0 0557 0980
 - plastic sleeves 24
- 0 0557 0981
 - plastic protection cover 24
- 0 0739 1056
 - allen key, 3 mm 8, 10, 15, 18
- 0 0739 1057
 - allen key, 4 mm 10, 18

A

- ALI 2.177
 - support post, 70 mm 8
 - support posts 15
- ALI 2.179
 - support posts 10, 18
- ALI 2.720FSET 32, 36
- ALI 2.720 SET 31, 34
- ALI 2.721FSET 32, 38
- ALI 2.721 SET 31, 34
- ALI 2.722FSET 33
- ALI 2.722 SET 31, 35
- ALI 2.766
 - extension posts 10, 18
- ALI 2.771
 - sensor holder 8, 10, 15, 18
- ALI 2.772
 - plunger guide plate 18
 - plunger guide posts 10
- ALI 2.773-110
 - plunger, 110 mm 8, 15
- ALI 2.773-415
 - plunger, 415 mm 10, 18
- ALI 2.777-500
 - stabilising posts 18
 - stabilising posts, 500 mm 10
- ALI 2.778
 - anti-torsion bridge 24
- ALI 2.782-1
 - clamping bridge 15, 18
- ALI 2.782-2
 - eccentric head 15, 18
- ALI 2.782-3
 - adapter 18
- ALI 2.783-M
 - universal mounting bridge with studs 10, 18
- ALI 2.783-S
 - mounting bridge 7
 - universal mounting bridge with studs 8, 15
- ALI 2.784-M
 - intermediate mounting bridge 10, 18

C

- Clamping levers 17, 20

F

- F (Full) packages 31

H

- Hexagon socket screws 13

L

- Laser beam
 - set-up 25
- Locking pin 26

M

- M4 hex cap screws 24

O

- Overview table
 - example 7

P

- Part number 45

S

- Safety symbols 5