

Brackets Catalog

2 0 1 8



© PRÜFTECHNIK; All rights reserved

Printed in Germany

DOC 01.700.EN

CONTENTS

In the following section you will find detailed information on **brackets** for our laser alignment systems. These components are either included in the scope of delivery or available as optional accessories.

INDEX	5
Chain-type Brackets	6
Compact Magnetic Bracket	9
Extra-thin Brackets	11
Measuring Fixtures for Cardan Shafts	13
Magnetic Bracket for Horizontal and Vertical Surfaces	16
Magnetic Sliding Bracket for Shafts and Flanges	17
Universal Magnetic Sliding Bracket	19
Universal Magnetic Bracket	21
Universal Holder	24
Universal Pointer Bracket - UPB	26
Sensor Bracket for Small Bore Measurements	29
Large Bore Bracket - LBB	31
CENTRALIGN Mounting Bridge	34
Universal Mounting Bridge	36
Tripod stand for LEVALIGN Laser	38
Floor stand with rotatable sensor holder	42
Magnetic Foot Holder for Laser and Sensor	43
Plunger for Flatness Measurement	46
Rotatable Magnetic Bracket	48
Posts	49
Mounting Adapters	50
Anti-torsion Bridges	51
PERMAFIX Bracket	52

empty page

INDEX

A

- ALI 14.310 - p. 16
- ALI 2.109 SET - p. 11
- ALI 2.109LSET - p. 11
- ALI 2.112 - p. 9
- ALI 2.112 SET-S - p. 9
- ALI 2.113 SET - p. 6
- ALI 2.114 - p. 7
- ALI 2.115 - p. 7
- ALI 2.116 - p. 7
- ALI 2.117 - p. 7
- ALI 2.118 - p. 6
- ALI 2.170 - p. 49
- ALI 2.171 - p. 49
- ALI 2.172 - p. 49
- ALI 2.173 - p. 49
- ALI 2.174 - p. 49
- ALI 2.175 - p. 49
- ALI 2.177 - p. 49
- ALI 2.178 - p. 49
- ALI 2.179 - p. 49
- ALI 2.190 - p. 52
- ALI 2.191 - p. 51
- ALI 2.194 - p. 52
- ALI 2.2117 - p. 49
- ALI 2.220 - p. 19
- ALI 2.220 SET - p. 19
- ALI 2.230-1 - p. 17
- ALI 2.450 - p. 13
- ALI 2.451 - p. 6
- ALI 2.452 - p. 7
- ALI 2.460 - p. 13
- ALI 2.461 - p. 6
- ALI 2.462 - p. 7
- ALI 2.463 - p. 51
- ALI 2.464 - p. 51
- ALI 2.480 - p. 14
- ALI 2.715 - p. 36
- ALI 2.716 - p. 36
- ALI 2.717 - p. 36
- ALI 2.718 - p. 36
- ALI 2.719 - p. 26
- ALI 2.760 SET - p. 26
- ALI 2.761-IS - p. 21
- ALI 2.761 SETIS - p. 21
- ALI 2.766 - p. 27
- ALI 2.772 - p. 27
- ALI 2.773-270 - p. 26
- ALI 2.773-415 - p. 27
- ALI 2.777-255 - p. 27
- ALI 2.777-500 - p. 27
- ALI 2.778 - p. 51
- ALI 2.782-1 - p. 27
- ALI 2.782-2 - p. 27
- ALI 2.782-3 - p. 27
- ALI 2.783-M - p. 27
- ALI 2.783-P - p. 27
- ALI 2.783-S - p. 26
- ALI 2.784-M - p. 27
- ALI 2.789 - p. 26, 50
- ALI 2.874 SETIS - p. 13
- ALI 2.875 - p. 14
- ALI 2.876 - p. 14
- ALI 2.893 SETIS - p. 13
- ALI 2.894 - p. 14
- ALI 2.896 - p. 14
- ALI 3.115-C - p. 32
- ALI 3.115-O - p. 32
- ALI 3.116... - p. 32
- ALI 3.194-IS - p. 50
- ALI 3.231-075 - p. 34
- ALI 3.231-100 - p. 34
- ALI 3.231-200 - p. 34
- ALI 3.241-075 SET - p. 34
- ALI 3.241-100 SET - p. 34
- ALI 3.242-075 SET - p. 34
- ALI 3.242-100 SET - p. 34
- ALI 3.274 - p. 33
- ALI 3.298 - p. 32
- ALI 3.389-130 - p. 33
- ALI 3.400 - p. 32
- ALI 3.889 - p. 27
- ALI 4.500 - p. 50
- ALI 4.501-IS - p. 43
- ALI 6.773 - p. 46
- ALI 6.954 - p. 48
- ALI 6.956 - p. 38
- ALI 6.957 - p. 38
- ALI 6.958 - p. 38
- ALI 6.959 - p. 39
- ALI 6.960 - p. 38
- ALI 6.966 - p. 50
- ALI 6.967 - p. 42
- ALI 6.968 - p. 39
- ALI BV25 - p. 29
- ALI BV26 - p. 24
- ALI BV26.MP - p. 24
- ALI BV26.RE - p. 24
- ALI BV26.xx - p. 24
- ALI BV27.xx.yy - p. 24

Chain-type Brackets

Chain-type brackets are the standard brackets for shaft alignment. They can be used universally and ensure secure and stable mounting of the measuring components on the shaft or coupling flange.



Features

- Quick and easy mounting
- Robust and high-quality design
- Exact bores
- Torsion-resistant body

Order information

The following chain-type brackets are available:

Item No.	Name	Scope of delivery
ALI 2.118	Compact chain-type bracket	Body Chain 600 mm Post 200 mm, 2x Hexagon wrench, size 4
ALI 2.113 SET	Compact chain-type bracket, set with 2 pcs	Body, 2x Chains 300 mm / 600 mm, 2 each Posts 115, 150, 200, 250, 300 mm, 4 each Hexagon wrench, size 4, 2x Roll-up case
ALI 2.461	Chain-type bracket for large shaft diameter	Body, large Chain 1500 mm Post 300 mm, 3x Anti-torsion bridge, 2x
ALI 2.451	Cardan shaft chain-type bracket with rotating arm	Body, large Chain 1500 mm Post 300 mm, 3x Anti-torsion bridge, 2x

Instructions: An anti-torsion bridge is required for posts longer than 200 mm.
The maximum post length for the compact chain-type bracket amounts to 300 mm.

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
Chains			
ALI 2.114	Chain 300 mm		
ALI 2.115	Chain 600 mm		
ALI 2.116	Chain 1500 mm		
Body			
ALI 2.117	Body for compact chain-type bracket	incl. hexagon wrench	
ALI 2.452	Body, rotating arm		
ALI 2.462	Body, large		
Miscellaneous			
ALI 2.191	Anti-torsion bridge for 2 posts		p. 51
ALI 2.463	Anti-torsion bridge for 3 posts		p. 51
ALI 5.020	External inclinometer		

TECHNICAL INFORMATION

To ensure stable mounting of the chain-type bracket, it must be possible to securely brace the chain around the circumference of the shaft/coupling. Here, the length of the chain and - for large diameters - the body are essential.

Shaft/coupling flange diameter	Chain		
	300 mm	600 mm	1500 mm
D_{max}	100 mm	200 mm	500 mm (400 mm*)
D_{min}	20 mm		50 mm (20 mm*)

* with compact chain-type bracket

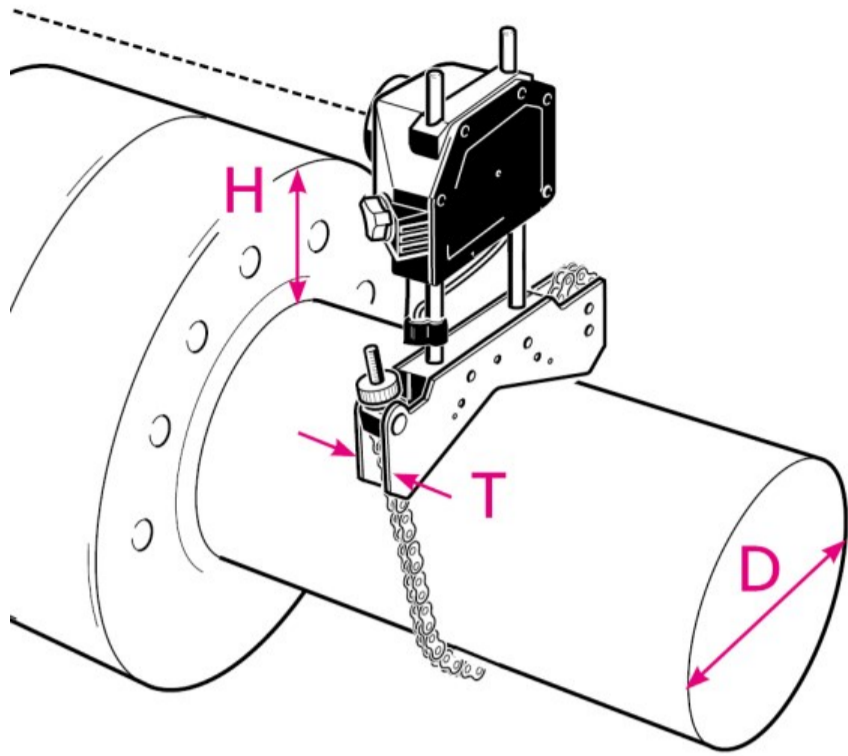
The space on the shaft/flange must be sufficient to mount the chain-type bracket. **Design depth DD** of the body is essential here.

Design depth	Body		
	Compact	Large	Rotating arm
DD_{min}	20 mm	35 mm	60 mm

Clearance C is the distance of the shaft surface to the coupling rim and defines the height, from which the laser beam hits above the coupling. Length L of the post is essential here:

	Clearance
C_{max}	$L \dots L - 30 \text{ mm}^*$

* for minimum shaft diameter



Compact Magnetic Bracket

This bracket allows quick and stable mounting of the sensor system onto any ferromagnetic machine components. During shaft alignment, it is mounted on the face on the coupling flange. During bore measurement, it is used as laser holder.



Features

- Quick and easy mounting
- Stable magnetic coupling
- Low design depth
- Including posts (115 mm)
- Compatible with current sensor system

Order information

Item No.	Name	Scope of delivery
ALI 2.112	Compact Magnetic Bracket	Body, magnetic bracket Post 115 mm, 2x Hexagon wrench, size 3
ALI 2.112 SET-S	Compact magnetic bracket, 2 pcs,	Body, magnetic bracket, 2x Post 115 mm, 4x Hexagon wrench, size 3 In cardboard box with foam insert

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49

TECHNICAL INFORMATION

Application	Magnetic bracket	
Shaft alignment		Magnetic bracket mounted on coupling flange
Dimensions	45 x 85 x 10 mm (L x W x H), body	

Extra-thin Brackets

These brackets have a low design depth (8 mm) and represent an ideal alternative to chain-type brackets for very limited spaces between coupling and housing.



Features

- Quick and easy mounting
- Low space requirement: 8 mm
- Mounting with threaded rods and quick-mounting slip nuts
- Permanently installed posts for laser and sensor

Order information

Extra-thin brackets are available in the following sets:

Item No.	Name	Scope of delivery	
ALI 2.109 SET	Extra-thin bracket, set	Extra-thin bracket, 2x Threaded rod, long, 4x Small, extra-thin bracket, 2x Case	
ALI 2.109LSET	Small, extra-thin bracket, set	Small, extra-thin bracket, 2x Case	

Instructions: Only use this brackets if there is not enough space for chain-type brackets.

TECHNICAL INFORMATION

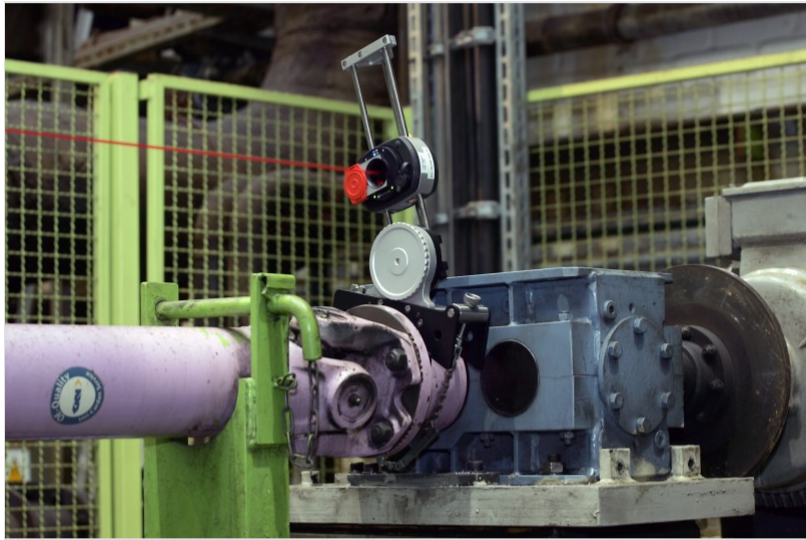
To ensure stable mounting, it must be possible to securely bolt the bracket onto the shaft. Here, the length of the threaded rods and the size of the body are essential.

Shaft diameter	Bracket	
	Extra-thin	Small, extra-thin
D_{max}	160 mm	100 mm

Clearance C is the distance of the shaft surface to the coupling rim and defines the height, from which the laser beam hits above the coupling. The length of the post is essential here: $C_{max} = L = 150$ mm

Measuring Fixtures for Cardan Shafts

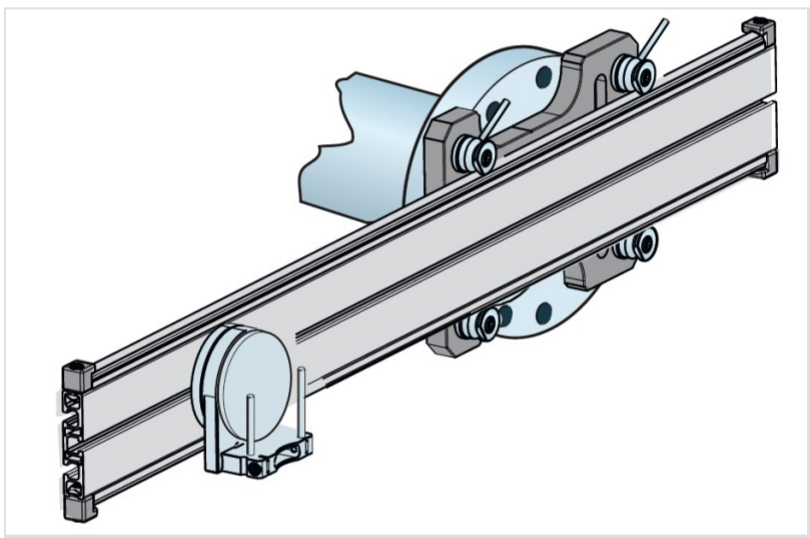
Four measuring fixtures are available for cardan shaft alignment. The selection criteria are based on the circumstances on site and the used measuring equipment consisting of sensor system and computer firmware.



Cardan shaft chain-type bracket with rotating arm, ALI 2.450

Features

- Measurement with installed and removed cardan shaft
- Shaft offset up to 900 mm possible
- Ideal for limited rotation angle in installed condition
- Compatible with all PRÜFTECHNIK sensors



Cardan shaft bracket, ALI 2.893 SETIS

Order information

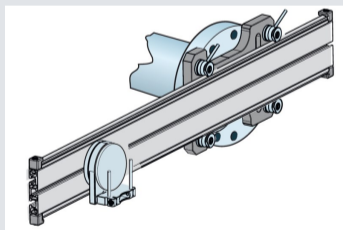
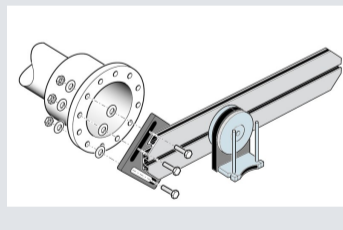
Item No.	Measuring fixture
ALI 2.450	Cardan shaft chain-type bracket with rotating arm, set
ALI 2.460	Chain-type bracket for large diameter, set
ALI 2.893 SETIS	Cardan shaft bracket, set
ALI 2.874 SETIS	Cardan shaft bracket Lite, set

The scope of delivery results from the following overview:

Scope of delivery

Item No.	CONTENT		Measuring fixture	
			ALI 2.450	ALI 2.460
ALI 2.451	Cardan shaft chain-type bracket with rotating arm	p. 6	✓	✗
ALI 2.461	Chain-type bracket for large diameter	p. 6	✓	✓, 2x
ALI 2.178	Post 400 mm	p. 6	✓, 6x	✓, 6x

CONTENT			Measuring fixture	
Item No.	Name		ALI 2.450	ALI 2.460
ALI 2.179	Post 495 mm	p. 6	✓, 6x	✓ 6x
ALI 5.020	External inclinometer , 2 pcs	p. 6	✓ 2x	✓ 2x
0 0739 1056	Hexagon wrench, DIN 911, size 3		✓ 2x	✗
0 0739 1056	Hexagon wrench, DIN 911, size 2.5		✗	✓ 2x
ALI 2.480	Case		✓	✓
DOC 99.201	Operating instructions, Getting started		✓	✓
				

CONTENT			Measuring fixture	
Item No.	Name		ALI 2.893 SETIS	ALI 2.874 SETIS
ALI 2.894	Extension arm for cardan shaft bracket		✓	✗
ALI 2.896	Case for cardan shaft bracket		✓	✗
ALI 2.875	Extension arm for cardan shaft bracket lite		✗	✓
ALI 2.876	Case for cardan shaft bracket lite		✗	✓
DOC 99.201	Operating instructions, getting started		✓	✓
				

TECHNICAL INFORMATION

The following overview shows, which measuring fixture is compatible with which measuring equipment and on-site circumstances.

Property	Measuring fixture	
	ALI 2.450	ALI 2.460
sensALIGN sensor system	✓	✓
ROTALIGN sensor system	✗	✗
OPTALIGN sensor system	✗	✗
ROTALIGN touch	✓	✓
ROTALIGN Ultra Shaft v 3.03	✓	✓
ROTALIGN Ultra iS Shaft Advanced / Expert	✓	✓
ROTALIGN Ultra iS Shaft Standard	✓	✓
Cardan shaft installed	✓	✓
Maximum shaft offset in mm	400	300

Property	Measuring fixture	
	ALI 2.893 SETIS	ALI 2.874 SETIS
sensALIGN sensor system	✓	✓
ROTALIGN sensor system	✓, with Multipoint	✓, with Multipoint
OPTALIGN sensor system	✓, with Multipoint	✓, with Multipoint
ROTALIGN touch	✓, with intelliPOINT	✓, with intelliPOINT
ROTALIGN Ultra Shaft v 3.03	✓	✓
ROTALIGN Ultra iS Shaft Advanced / Expert	✓, with intelliPOINT	✓, with intelliPOINT
ROTALIGN Ultra iS Shaft Standard	✓, with Multipoint	✓, with Multipoint
Cardan shaft installed	✗	✗
Maximum shaft offset in mm	900	350

Magnetic Bracket for Horizontal and Vertical Surfaces

This magnetic bracket is used by default for **Live Trend** measurements. It secures laser and sensor to magnetic surfaces on the machine. For mounting on vertical surfaces, the posts can be mounted offset by 90°.



Features

- Flexible application
- Quick and easy mounting
- For flat and curved surfaces
- Stable magnetic coupling
- Including posts (115 mm)
- Compatible with current sensor system

Order information

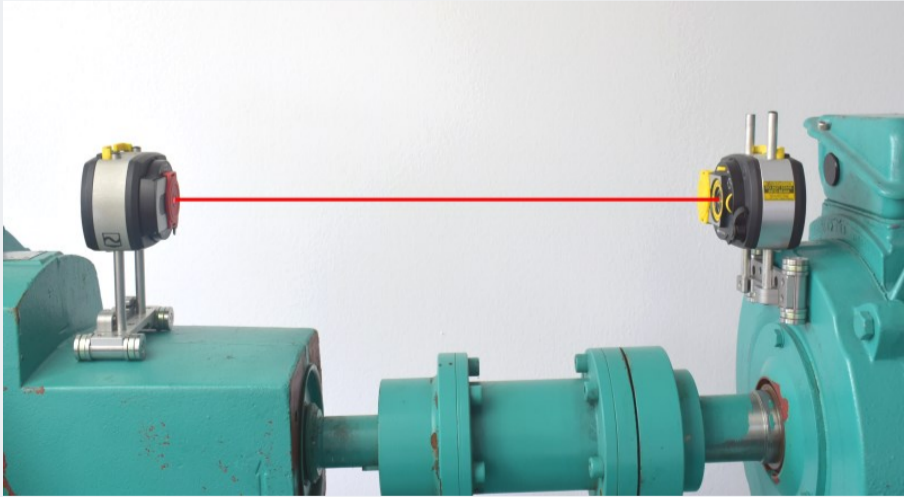
Item No.	Name	Scope of delivery
ALI 14.310	Magnetic Bracket for Horizontal and Vertical Surfaces	Base body including magnet and 90° adapter Post 115 mm, 2 pcs

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
ALI 2.191	Anti-torsion bridge for 2 posts	for posts with $L \geq 200$ mm	p. 51

TECHNICAL INFORMATION

Application	Magnetic Bracket for Horizontal and Vertical Surfaces
Live Trend	 <p>Sensor bracket (left) on horizontal, laser bracket on vertical surface.</p>
Dimensions	108 x 50 x 33 mm (L x W x H), without post

Magnetic Sliding Bracket for Shafts and Flanges

This magnetic bracket is used by default for shaft alignment, if a shaft cannot be rotated. The bracket is mounted on the coupling face or shaft end and shifted along the outer edge for the measurement.



Features

- Quick and easy mounting
- For diameters > 80 mm
- Stable magnetic coupling
- Precise guiding along outer edge
- Including posts (150 mm)
- Compatible with current sensor system

Order information

Item No.	Name	Scope of delivery
ALI 2.230-1	Magnetic Sliding Bracket for Flanges, Set	Sliding bracket pre-assembled with 150 mm post Hexagon wrench, size 3 Case

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
ALI 2.464	Anti-torsion bridge for 3 and 4 posts	for posts with $L \geq 200$ mm	p. 51

TECHNICAL INFORMATION

Application	Magnetic sliding bracket	
Shaft alignment		Sliding bracket mounted on coupling flange
Dimensions	70 x 160 x 55 mm (L x W x H), without post	

Note: High surface quality of the face end required for reproducible alignment results.

Universal Magnetic Sliding Bracket

This bracket can be diversely used for shaft alignment and bore measurements. As measuring fixture, it secures the sensor to the coupling face and can be precisely shifted across the outer edge using the sliding stud. As laser holder, it can be mounted to both sides on a coupling or bore.



Features

- Face-end mounting on surface area or outer edge
- Quick, easy, and flexible application
- For diameters > 60 mm
- Stable magnetic coupling
- Movable sliding studs
- Including posts (150 mm)
- Compatible with current sensor system

Order information


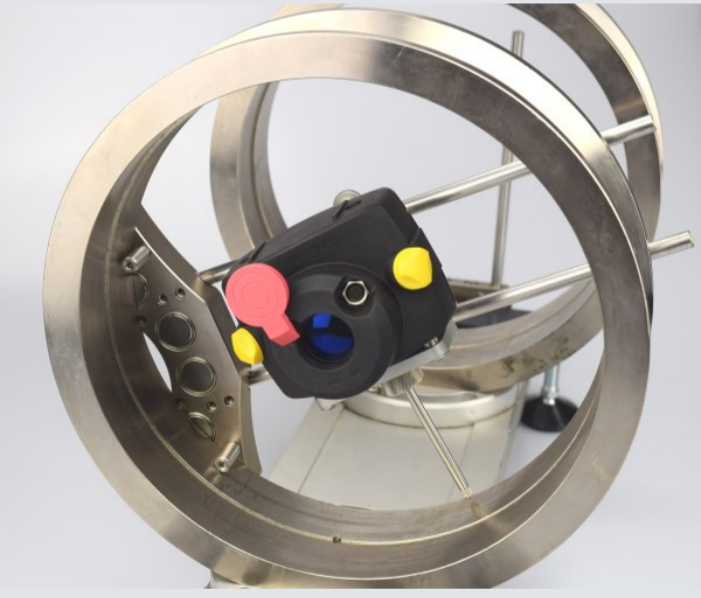
Item No.	Name	Scope of delivery
ALI 2.220 SET	Universal magnetic sliding bracket for flanges and bores, set	Sliding bracket pre-assembled with 150 mm post Hexagon wrench, size 3 Case
ALI 2.220	Universal magnetic sliding bracket for flanges and bores	Sliding bracket pre-assembled with 150 mm post

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
ALI 2.789	RS5 sensor holder for universal pointer bracket (UPB)	Sensor holder for bore measurements with pointer method.	p. 50
ALI 2.773-xxx	Plungers in different lengths for UPB	Available lengths (xxx): 110, 270, 415, 430, 500 mm For lengths > 110 mm, additional UPB components are required to stabilize the measuring fixture.	---
ALI 2.2xx	Z-adapter for RS5 sensor, universal magnetic sliding bracket	Sensor holder for bore measurements with sliding method	

TECHNICAL INFORMATION

Application	Universal sliding bracket	
Shaft alignment		Sliding bracket mounted on coupling flange
Bore measurement with pointer method		<p>RS5 sensor* with sensor holder and plunger mounted on magnetic bracket. Adjustment to greater diameters via longer posts.</p> <p>Using the pointer method, offset, eccentricity, and damage (Dents, notches, etc.) of the bore can be detected. The sliding method provides offset information only.</p> <p>* without integrated BT module</p>
Dimensions	60 x 160 x 55 mm (L x W x H), without posts	

Note: High surface quality of the face end required for reproducible alignment results.

Universal Magnetic Bracket

This bracket can be diversely used for shaft alignment, measurement of positional changes (Live Trend) and bore measurements.



Features

- Laser bracket and sensor measuring fixture
- Stable magnetic 4-point coupling
- Adjustable mounting bridges and magnets
- Including posts (150 mm)
- Bore diameter: 160 ... 500 mm
- Two axial mounting positions for the posts
- Compatible with current sensor system

Order information

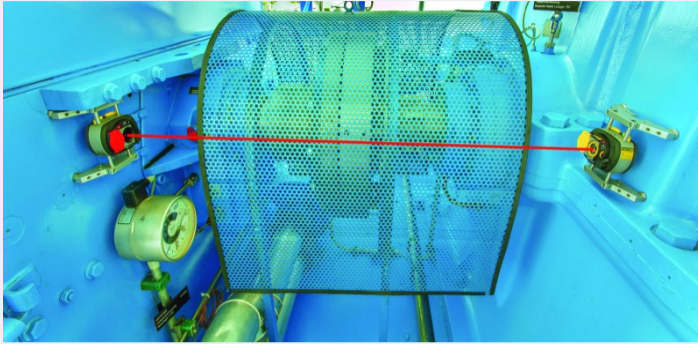
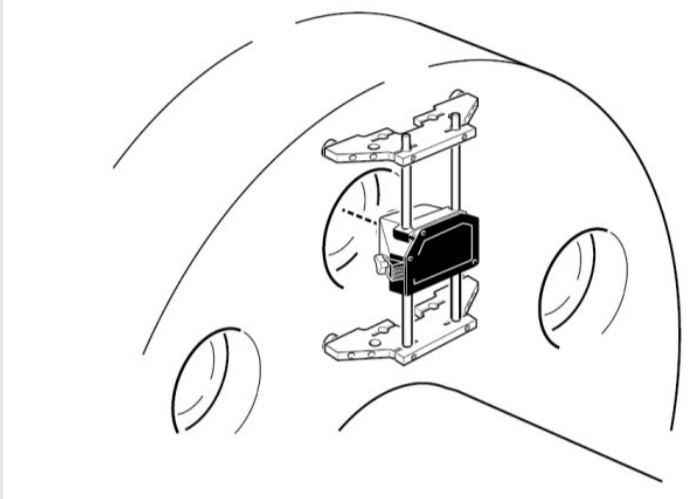

Item No.	Name	Scope of delivery
ALI 2.761 SETIS	Universal magnetic bracket for flanges and bores, set	2 magnetic brackets, pre-assembled with 150 mm posts Hexagon wrench, size 3 Case
ALI 2.761-IS	Universal magnetic bracket for flanges and bores	1 magnetic brackets, pre-assembled with 150 mm posts Hexagon wrench, size 3

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
ALI 2.789	RS5 sensor holder for universal pointer bracket (UPB)	For measurement of concentric components	p. 50
ALI 2.773-xxx	Plungers in different lengths for UPB	Available lengths (xxx): 110, 270, 415, 430, 500 mm For lengths > 110 mm, additional UPB components are required to stabilize the measuring fixture.	

TECHNICAL INFORMATION

Application	Universal Magnetic Bracket	
<p>Live Trend</p>		<p>Magnetic bracket mounted on machine housing. Standard bracket for the measurement of positional changes using the Live Trend function.</p>
<p>Shaft alignment</p>		<p>Magnetic bracket mounted on coupling flange. Laser beam is directed through a bore hole. In the case of couplings with respectively large bores, the magnetic bracket can replace the complete chain-type bracket. In this case, the laser beam is directed through a bolt hole. Thus, the sensor system does not protrude over the rim of the coupling.</p>
<p>Bore measurement</p>		<p>Laser mounted outside of the bore. Laser beam is directed into the bore, but can be rotated by 180°.</p>

Application**Universal Magnetic Bracket****Bore measurement**

RS5 sensor* with sensor holder and plunger mounted on magnetic bracket. Adjustment to greater diameters via longer posts.

* without integrated BT module

An optionally available sensor holder and a matching plunger are required for use as measuring fixture. The magnetic bracket is mounted to the outside of the bore. If space is tight and if used as measuring fixture, the posts can be axially moved towards the front.

Dimensions

57 x 163 x 32* mm (L x W x H)

*Height with the mounting brackets pushed together; maximum height depending on length of posts

Universal Holder

This compact holder can be diversely used for shaft alignment and bore measurements. It offers numerous mounting options for couplings, machine housings, and bores. Design depth and length of the posts are adjusted to the dimensions of the current sensor system (laser and sensor).



Features

- Compact, lightweight design
- Ideal for shaft alignment and Live Move measurements
- Universal mounting options
- Quick, easy, and flexible application
- Including posts (100 mm)
- Compatible with current sensor system
- Dimensions: 80 x 80 x 40 mm [3 1/8" x 3 1/8" x 1 9/16"], without posts

Order information

Item No.	Name	Scope of delivery
ALI BV26	Universal holder without laser beam opening	Holder pre-assembled with 100 mm post Hexagon wrench, size 3

The following components are available as accessories:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
ALI BV26.MP	Three-point magnetic holder	For mounting on magnetic components with flat surfaces. Diameter magnetic holder: 58 mm [2 5/16"]	p. 25
ALI BV26.RE	Magnetic Z-adapter, 3 pcs	For mounting on magnetic components with flat surfaces. Maximum range of Z-adapter: 120 mm [4 3/4"]	p. 25
ALI BV26.xx	Spanner socket for hexagon screws	For mounting on existing screws with hexagonal profile. Available for across flats AF (xx): 17 / 19 / 24 / 30 / 36 / 46 / 55.	p. 25
ALI BV27.xx.yy	Rotatable mandrel	For mounting in smaller bores. Available for different bore diameters (xx) and lengths (yy).	p. 25

TECHNICAL INFORMATION

Mounting options

Option	Illustration	Application
<p>Three-point magnetic holder, ALI BV26.MP</p>		<p>Live Move: Holder is secured magnetically on the machine housing.</p> <p>Shaft alignment: Holder is secured magnetically on the coupling flange.</p>
<p>Magnetic Z-adapter, ALI BV26.RE</p>		<p>Live Move: Holder is secured magnetically on the machine housing.</p> <p>Shaft alignment: Holder is secured magnetically on the coupling flange.</p>
<p>Spanner socket, ALI BV26.xx</p>		<p>Live Move: Holder is mounted to screw connection on the machine housing</p>
<p>Rotatable mandrel, ALI BV27.xx.yy</p>		<p>Bore measurement: Holder is precisely fitting into the bore and rotated for measurements.</p> <p>Measurement mode: Multi-point or static measurement</p>

Universal Pointer Bracket - UPB

This bracket is used to measure alignment and roundness of concentric components, such as bearing channels or cylinder bores. It is suitable for bores made of magnetic as well as non-magnetic material.



Features

- High-quality mechanical components for high measuring accuracy
- Can be used in nor or on front face
- For magnetic and non-magnetic bores
- Standard equipment for diameters up to 400 mm
- Optionally extensible for diameters up to 810 mm
- Compatible with current sensor system


Order information

Item No.	Name
ALI 2.719	UPB - universal pointer bracket for RS5 sensor
ALI 2.760 SET	UPB extension set for diameters up to 810 mm, magnetic and non-magnetic

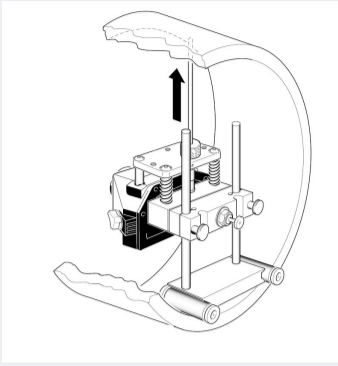
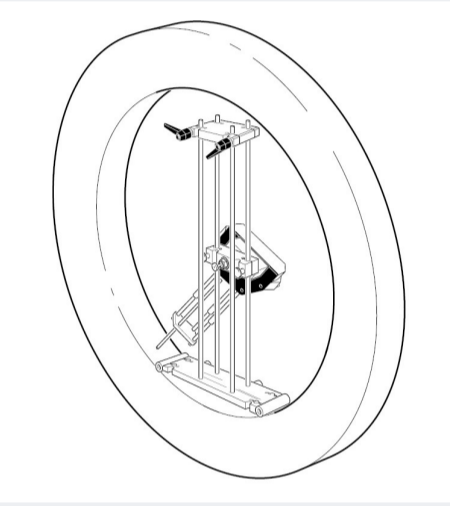

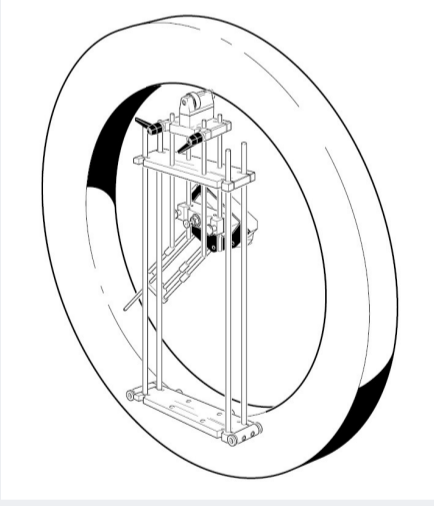
Scope of delivery - UPB, ALI 2.719

Item No.	Name	Quantity
ALI 2.789	RS5 sensor holder for universal pointer bracket (UPB)	1
ALI 2.773-270	Plunger, 270 mm	1
ALI 2.783-S	Universal mounting bridge with sliding studs, small	1
ALI 2.173	Post 250 mm, green	2
Overview		

Scope of delivery - UPB extension set, ALI 2.760 SET

Item No.	Name	Quantity
ALI 2.171	Post 150 mm, black	2
ALI 2.172	Post 200 mm, gray	2
ALI 2.173	Post 250 mm, green	4
ALI 2.174	Post 300 mm, yellow	4
ALI 2.175	Post 350 mm	4
ALI 2.177	Post 70 mm	2
ALI 2.178	Post 400 mm	4
ALI 2.179	Post 495 mm	4
ALI 2.2117	Post 100 mm	4
ALI 2.766	Extension post plunger guide plate, UPB	3
ALI 2.772	Plunger guide plate, UPB	1
ALI 2.773-415	Plunger, 415 mm	1
ALI 2.777-255	Stabilizing post, 255 mm, UPB	4
ALI 2.777-500	Stabilizing post, 500 mm, UPB	4
ALI 2.782-1	Clamping bridge, UPB	1
ALI 2.782-2	Eccentric head, UPB	1
ALI 2.782-3	Adapter, UPB	1
ALI 2.783-M	Universal mounting bridge with sliding studs, medium, UPB	1
ALI 2.783-P	Bore surface protector for universal mounting bridge, UPB (set of 4x magnet protectors and 6x sleeves)	1
ALI 2.784-M	Intermediate mounting bridge, medium, UPB	1
---	Hexagon wrench, size 3 and size 4	1 each
ALI 3.889	Case	1
Overview, without case		

TECHNICAL INFORMATION

Bore	UPB - universal pointer bracket	
<p>Magnetic, D: 120...400 mm</p>		
	<p>The UPB can be placed in the bore or on the front face. Strong magnets secure the UPB; two sliding studs provide additional support for the measuring fixture when mounted outside of the bore.</p>	<p>The measuring probe is lowered onto the surface and moves the sensor into measuring position.</p>
<p>Magnetic, D: ≤ 810 mm</p>		
	<p>Additional components extend the area of application of the UPB to bores with larger diameter.</p>	<p>The measuring probe and sensor bracket are stabilized using additional components.</p>
<p>Non-magnetic, D: ≤ 810 mm</p>		
	<p>In the case of non-magnetic surfaces, the UPB is mechanically secured in the bore using the universal mounting bridge and the mounting bridge with eccentric head.</p>	<p>The UPB is mechanically secured on the front face of the bore. The sliding studs on the eccentric head and the universal mounting bridge are used as pads.</p>

Sensor Bracket for Small Bore Measurements

This sensor bracket is used for measuring small bores. The bracket is bolted to a suitable rotating arbor and pushed into the bore. To measure, the entire setup with installed sensor is rotated in the bore.



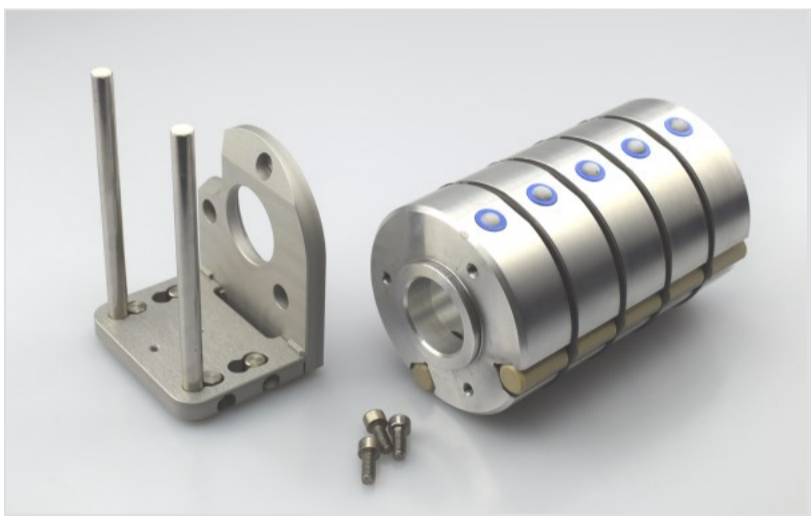
Features

- Compact, lightweight design
- Standard sensor bracket for cylindrical bores
- Bore diameter: 70 to 130 mm
- Mounting in bore using rotatable mandrel
- Beam opening and two axial post positions allow sensor installation in forward and backward direction
- Including posts (100 mm)
- Compatible with current sensor system

Order information

Item No.	Name	Scope of delivery
ALI BV25	Sensor bracket with beam opening	Bracket pre-assembled with 100 mm post

A respectively adjusted rotatable mandrel is required to mount the sensor bracket in the bore. The mandrel is produced to customer specifications.



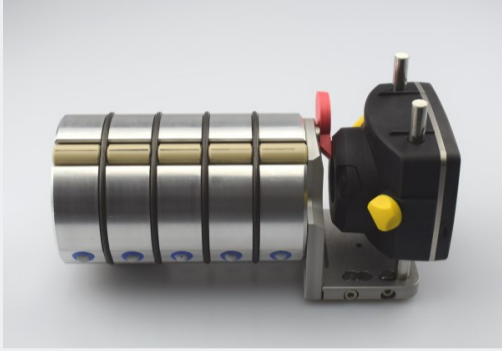

Sensor bracket and rotatable mandrel with plastic sliding elements.

Order information for custom arbor

Item No.	Name	Diameter	Usable length	Sliding elements
omitted	Rotatable mandrel for sensor bracket with beam opening	Specify the bore diameter in millimeters. To ensure stable mounting, the bore diameter must be constant across the entire usable length.	Specify the length in millimeters, the mandrel can be pushed into the bore.	Specify the material of the sliding elements: Select stainless steel if the bore is scratch-resistant. Otherwise specify plastic material.

TECHNICAL INFORMATION

Mounting options and dimensions

Mounting option	 <p>Sensor points into beam opening</p>	 <p>Sensor is positioned opposite the beam opening</p>
Application	<p>The laser beam hits the sensor through the bore. Mandrel and sensor bracket are respectively fitted with a beam opening. The posts are mounted in the front position to accommodate the sensor.</p> <p>Measurement mode: Multi-point or static measurement</p>	<p>The laser beam hits the sensor in front of the bore. The posts are mounted in the rear position to accommodate the sensor.</p> <p>Measurement mode: Multi-point or static measurement</p>
Dimensions	76x 54 x 95 mm (L x W x H), without posts	

Large Bore Bracket - LBB

The LBB measuring fixture is used to measure alignment and roundness of concentric components, such as guide vane carriers or diaphragms in a turbine. The LBB measuring fixture features a modular design and can be adjusted continuously across a wide range.



Features

- Measurement of open (tops-off) or closed (tops-on) machines
- Range from 545 mm to 4230 mm
- Axial measuring segment of up to 40 meters
- Magnetic and non-magnetic mounting
- Quick and easy mounting

Order information

The LBB measuring fixture consists of three main components: measuring head, telescopic arms and mounting options.

	Mounting option: Tops-off	Mounting option: Tops-on
Main components 1 to 3		
Typical setup		
	in example without ground contact	in example with magnetic foot mounting

1: Measuring head

Item No.	Name
ALI 3.400	LBB rotation frame, set

2: Telescopic arms and extension posts

Item No.	Name
ALI 3.116-SS	LBB telescopic arms, short (3x), range: 545 mm to 900 mm
ALI 3.116-SM	LBB telescopic arms, short (3x) and medium (4x), range: 545 mm bis 1900 mm
ALI 3.116-SL	LBB telescopic arms, short (3x), medium (4x) and long (4x), range: 545 mm to 3230 mm
ALI 3.116-SX	LBB telescopic arms, short (3x), medium (4x), long (4x), and extension (4x), range: 545 mm to 4230 mm
ALI 3.116-MM	LBB telescopic arms, medium (4x), range: 850 mm to 1900 mm
ALI 3.116-ML	LBB telescopic arms, medium (4x) and long (4x), range: 850 mm to 3230 mm
ALI 3.116-MX	LBB telescopic arms, medium (4x), long (4x), and extension (4x), range: 850 mm to 4230 mm
ALI 3.116-LL	LBB telescopic arms, long (4x), range: 1300 mm to 3230 mm
ALI 3.116-LX	LBB telescopic arms, long (4x), and extension (4x), range: 1300 mm to 4230 mm

3: Mounting option

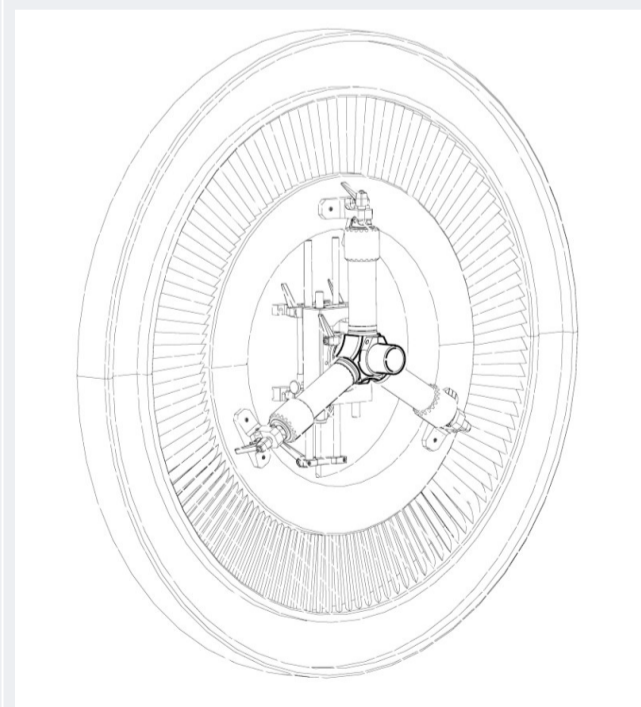
Item No.	Name
ALI 3.115-C	LBB mounting components for Tops-on configuration
ALI 3.115-O	LBB mounting components for Tops-off configuration

In addition, optional accessories are available:

Optional accessories

LBB 3-point carrier - ALI 3.298

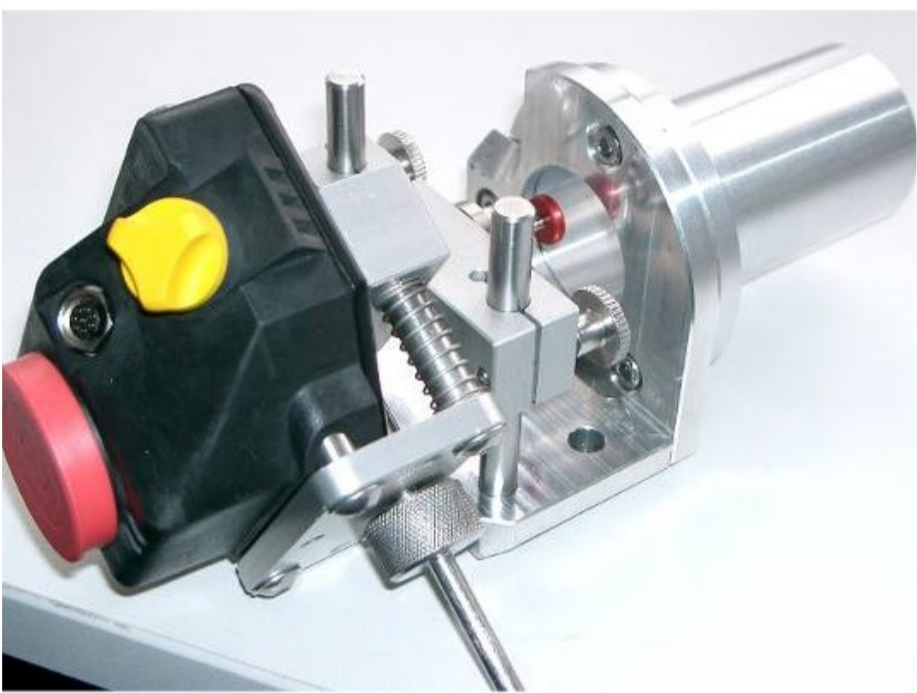
The LBB 3-point carrier replaces the standard rotation frame carrier (ALI 3.299) in the Tops-on configuration, when the third telescopic arm must be mounted to the upper bearing shell.



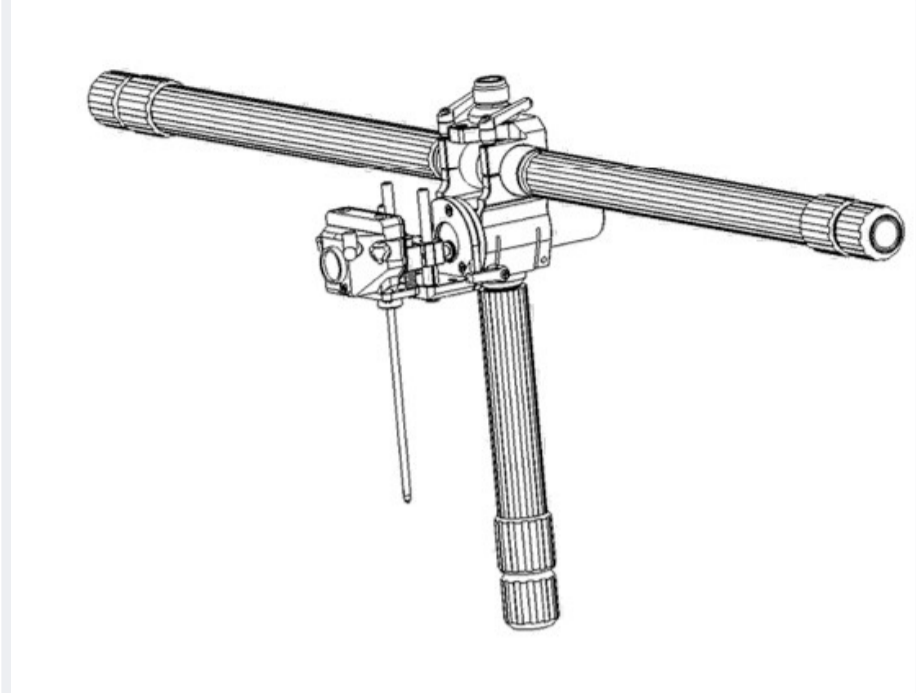
Tops-on configuration with LBB 3-point carrier

UPB to LBB adapter - ALI 3.274

This adapter replaces the standard rotation frame in the LBB when measuring smaller bores (> 120 mm).



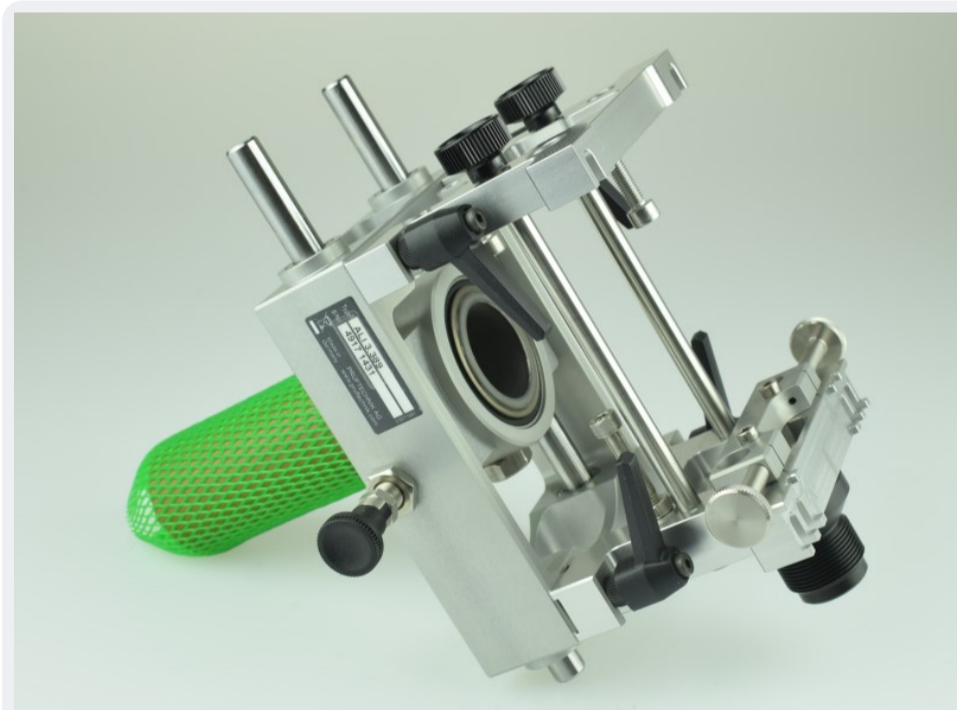
LBB adapter with sensor



LBB adapter mounted on measuring head carrier

LBB Sensor rotation frame with 130 mm extension - ALI 3.389-130

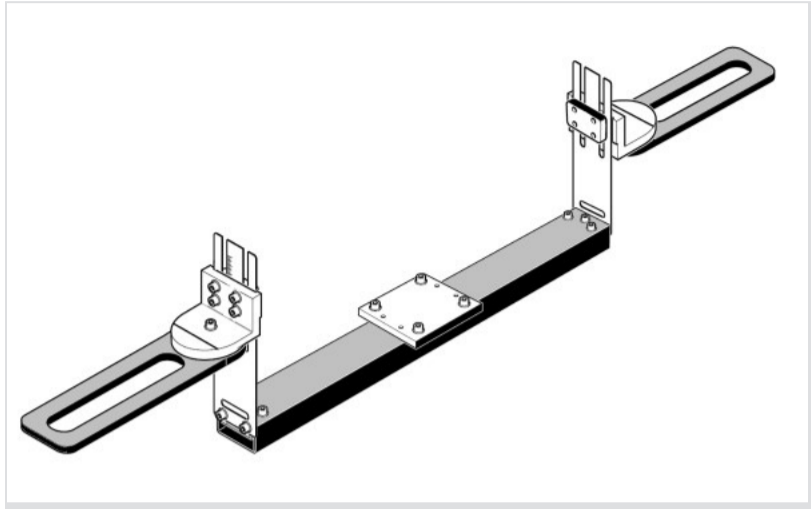
This sensor rotation frame has a longer axis of rotation than the standard frame and thus offers a larger adjustment range in the axial direction.



RS5 sensor and RF module mounted on LBB Sensor rotation frame

CENTRALIGN Mounting Bridge

The CENTRALIGN mounting bridge is used as holder for the laser and control sensor during turbine measurements. It can be easily adjusted to the diameters and mounting bores on the turbine shell.



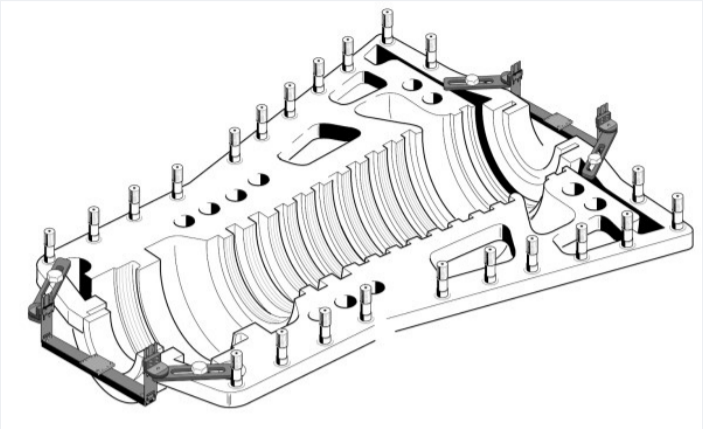
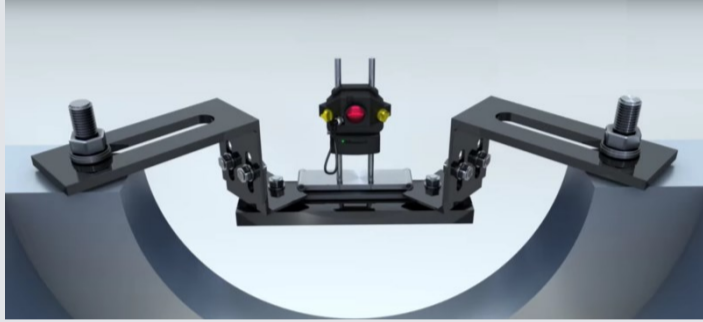
Features

- For open turbine configuration (tops-off)
- Stable holder for laser and control sensor
- Range adjustable
- Mounting in existing bores on the half-shell
- Delivery in practical transport case

Order information

Item No.	Name	Scope of delivery
ALI 3.241-075 SET	CENTRALIGN mounting bridge, nominal width 750 mm	One mounting bridge (ALI 3.231-075) in case
ALI 3.241-100 SET	CENTRALIGN mounting bridge, nominal width 1000 mm	One mounting bridge (ALI 3.231-100) in case
ALI 3.242-075 SET	CENTRALIGN mounting bridge, nominal width 750 mm	Two mounting bridges (ALI 3.231-075) in case
ALI 3.242-100 SET	CENTRALIGN mounting bridge, nominal width 1000 mm	Two mounting bridges (ALI 3.231-100) in case
ALI 3.231-200	CENTRALIGN mounting bridge, nominal width 2000 mm	One mounting bridge without case

TECHNICAL INFORMATION

Application	CENTRALIGN Mounting Bridge	
Measurement of turbines (tops-off)		<p>The two outer rails can be arbitrary rotated to adjust the mounting bridge to the diameters for the turbine half shell and the bore positions.</p>
Bracket for laser and control sensor		

Dimensions in mm

Mounting bridge	Nominal	Minimum	Maximum
ALI 3.231-075	750	210	1490
ALI 3.231-100	1000	460	1740
ALI 3.231-200	2000	1460	2740

Universal Mounting Bridge

This mounting bridge can be diversely used for bore measurements. It is light-weight, consists of a few individual components only and can be quickly mounted using magnetic clamping feet. The universal mounting bridge can be used as laser/sensor holder or as measuring fixture for large half-shells.



Features

- Light-weight aluminum construction
- For bore diameters from 120 to 900 mm
- Adjustable magnetic clamping feet
- Adjustable support post holder
- Can be used as holder or measuring fixture

Order information

Item No.	Name	Scope of delivery
ALI 2.715	Universal Mounting Bridge	Aluminum rail 40x40x1000 mm Clamping bracket for magnetic foot, 2x Support post holder, ALI 2.718

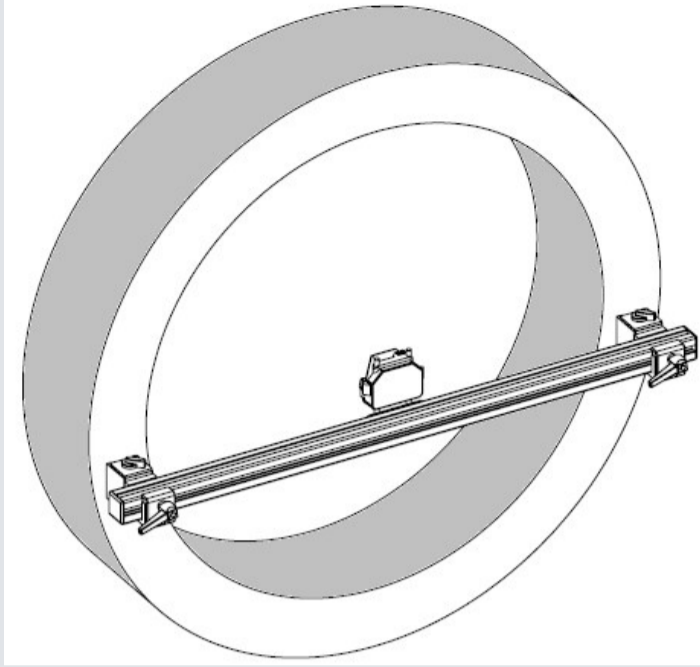
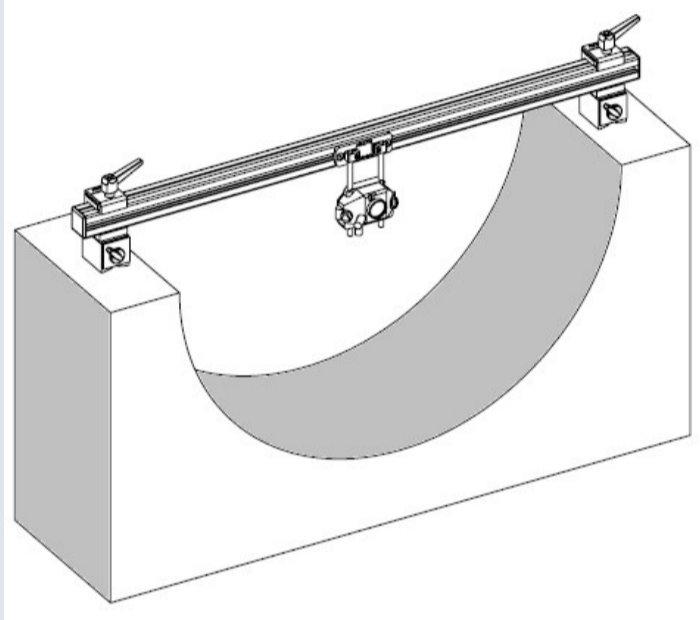
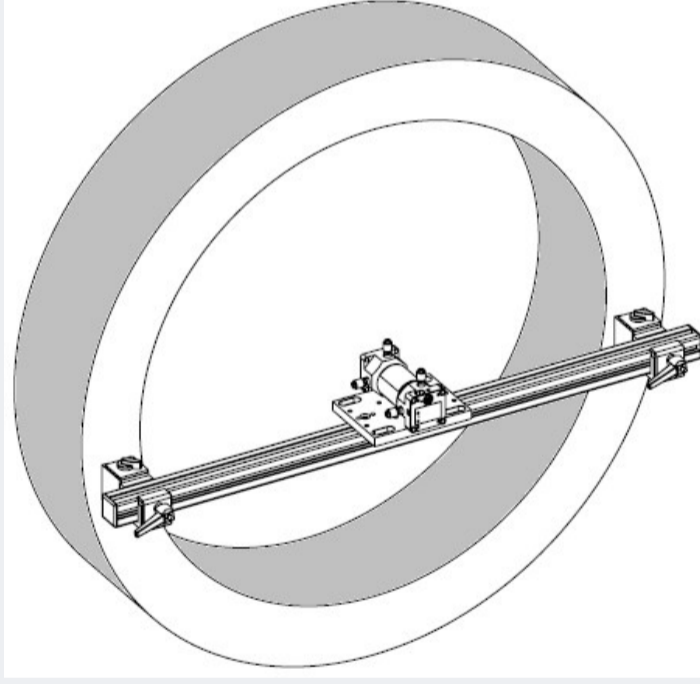
In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	Accessory item available in 10 different lengths	p. 49
ALI 2.717	Aluminum rail 40x40x1000 mm	Spare part	
ALI 2.716	Clamping bracket for magnetic foot	Spare part	
ALI 2.718	Support post holder	Spare part	

TECHNICAL INFORMATION

Application	Universal mounting bridge	
Bore measurement		<p>Bracket for universal pointer bracket (UPB) on open half-shells or smaller turbines (tops-off). This requires the following components:</p> <ul style="list-style-type: none"> ALI 2.171 - Posts 150 mm, 2x ALI 2.789 - RS5 Sensor holder, UPB ALI 2.773-xxx - Plunger xxx mm long ALI 2.772 - Plunger guide plate ALI 2.766 - Extension post for plunger guide plate, 3x

Application	Universal mounting bridge	
<p>Bracket for laser / control sensor</p>	 	<p>Laser/control sensor can be mounted outside the bore or on the half shell.</p> <p>This requires the following components:</p> <p>ALI 2.171 - Posts 150 mm, 2x</p>
<p>Bracket for long range laser</p>		<p>The mounting components are included in the scope of delivery of the laser.</p>
<p>Dimensions</p>	<p>40 x 40 x 1000 mm (W x H x L)</p>	

Tripod stand for LEVALIGN Laser

With this industrial tripod stand, the LEVALIGN Expert Laser can be set up quickly and stably. The laser can be mounted in two planes perpendicular to each other.



Features

- Vertical and horizontal mounting of the laser
- High quality workmanship
- Large adjustment range
- Adapter for ground-level installation
- Manually adjustable center column with self-braking gear transmission
- Mounting adapter for LEVALIGN Ultra Laser (accessory)
- Robust transport case.


Ordering information

Item No.	Name	Scope of delivery
ALI 6.960	LEVALIGN tripod set	Tripod stand incl. case and tripod adapter
ALI 6.956	Tripod stand for LEVALIGN Laser	Tripod stand w/out case and tripod adapter

Optional accessories

Item No.	Name	Notes
ALI 6.957	LEVALIGN tripod case	Case for transport and storage
ALI 6.958	LEVALIGN Expert Laser tripod adapter	Adapter for ground-level installation



Item No.	Name	Notes
ALI 6.968	LEVALIGN Expert Laser offset adjustment slide 	Adjust the laser beam to an axis of rotation (e.g. shaft / bore alignment)
ALI 6.959	LEVALIGN Ultra laser mounting plate for tripod 	Adapter for LEVALIGN Ultra laser

TECHNICAL INFORMATION

Technical data



Parameter	Tripod stand for LEVALIGN Laser, ALI 6.956
Transport length	101 cm [39 3/4"]
Weight	12 kg [423.3 oz]

Mounting options

Laser mounted vertically on center column	... horizontally on center column
Illustration		
H: laser - ground	115 cm ... 214 cm [45 1/4" ... 84 1/4"]	99 cm ... 198 cm [39 " ...77 15/16"]

Laser mounted vertically on tripod adapter	... horizontally on tripod adapter
Illustration		
H: laser - ground	49 cm ... 95 cm [19 5/16" ... 37 3/8"]	31.5 cm ... 77.5 cm [12 3/8" ...30 1/2"]

Laser mounted on offset slide	Application
<p>Illustration</p>		
	<p>Max. offset: 80 mm .[3 1/8"]</p>	<p>Alignment of rotational axes</p>

Laser mounted horizontally	... vertically
<p>Illustration</p>		

Floor stand with rotatable sensor holder

This holder is versatile in measuring flat objects. It is used to fix and position the LEVALIGN Expert sensor on the object to be measured.



Features

- Robust design
- Stable 3-point support
- Sensor holder rotatable by 360 °
- Leveling on the object with thumbscrews and bubble levels
- Fast, easy and flexible use
- Including posts (150 mm)

Ordering information

Item No.	Name	Scope of delivery
ALI 6.967	LEVALIGN Expert floor stand with rotatable sensor holder	Floor stand preassembled with sensor holder and posts 150 mm

The following accessories are required to mount the LEVALIGN Expert sensor:

Optional accessories

Item No.	Name	Details
ALI 6.966	LEVALIGN Expert sensor holder for posts 8 mm	p. 50

TECHNICAL INFORMATION

Mounting

Floor stand with rotatable sensor holder, ALI 6.967		
Mounting example		LEVALIGN Expert sensor mounted on sensor holder.
Dimensions	140 x 150 x 170 mm [5 1/2" x 5 7/8" x 6 11/16"]	(L x W x H), without posts
Weight	approx. 2.2 kg [77,6 oz]	

Magnetic Foot Holder for Laser and Sensor

This versatile holder is used to measure straightness and flatness of objects in the industry sector. The magnetic foot can be securely mounted on flat and curved surfaces (e.g., shafts) using its prismatic contact surface.



Features

- Stable magnetic mounting on surfaces and shafts
- Magnetic force can be activated via rotary switch
- Universal mounting options
- Quick, easy and flexible application
- Including posts (100 mm)
- Compatible with current sensor and laser components

Order information

Item No.	Name	Scope of delivery
ALI 4.501-IS	Magnetic Foot Holder for Laser and Sensor	Magnetic foot with post (100 mm and 50 mm) Universal mounting adapter with two mounting positions for laser and sensor Post 100 mm, 2x Hexagon wrench, size 3

Optional accessories

Item No.	Name	Notes	Details
ALI 6.773	Flatness plunger	For point scanning of flat surfaces	p. 46
ALI 6.966	LEVALIGN Expert sensor holder for posts 8 mm	To mount the LEVALIGN Expert sensor on the magnetic foot bracket in horizontal or vertical position. The scope of delivery contains longer posts (150 mm)	p. 50
Various	Posts	available in 10 different lengths	p. 49
ALI 3.194-IS	Universal mounting adapter with two mounting positions for laser and sensor	Spare part	p. 50
ALI 4.500	Magnetic foot	without post; spare part	p. 50

TECHNICAL INFORMATION

Mounting options and dimensions

Mounting	Magnetic foot bracket	
Foot with post		Standard setup, if no structural restrictions are present
Ground sensor		Beam guidance close to the measuring surface; posts in the second, front mounting position
Foot without post		Low height, compact design

Mounting	Magnetic foot bracket	
LEVALIGN Expert sensor		<p>longer posts (150 mm) required in vertical position</p>
Notes	<p>With sensALIGN and RS5, sensor and laser each, all mounting options are possible</p> <p>The LEVALIGN Expert sensor requires adapter ALI 6.966 for mounting on the posts</p> <p>LEVALIGN laser and LEVALIGN Expert laser cannot be mounted with this holder. A sufficiently dimensioned tripod is available instead</p>	
Dimensions	<p>65 x 50 x 55 mm (L x W x D), magnetic foot</p> <p>100 mm, length of magnetic foot post</p>	

Plunger for Flatness Measurement

This measuring probe is used for surface scanning.



Features

- Point scanning of surface
- Stable mounting using magnetic foot ALI 4.500
- Compatible with Universal Mounting Adapter ALI 3.194-IS

Order information

Item No.	Name
ALI 6.773	Flatness Plunger

Optional accessories

Item No.	Name	Notes	Details
ALI 3.194-IS	Universal mounting adapter with two mounting positions for laser and sensor.	is used as a sensor holder in flatness measurement applications	p. 50
Various	Posts	available in 10 different lengths	p. 49
ALI 4.500	Magnetic foot	For stable mounting of the entire measuring fixture on the measuring surface	p. 50

TECHNICAL INFORMATION

Typical measuring fixture setup



Plunger mounted on magnetic foot



Universal mounting adapter mounted on plunger



RS5 sensor mounted on universal mounting adapter

Rotatable Magnetic Bracket

This bracket is used as holder for the **sensALIGN sensor** for flatness measurements. The rotating function of the bracket facilitates the adjustment of the **LEVALIGN Ultra iS laser** to the detector areas in the sensor.



Features

- Simplified laser adjustment when the LEVALIGN Ultra iS laser is used.
- Stable mounting on the measuring surface using magnetic coupling or 3-point mounting base.
- Sensor attachment with posts (not included in scope of delivery)

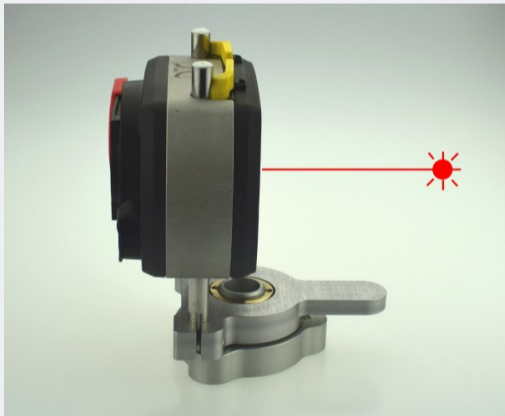
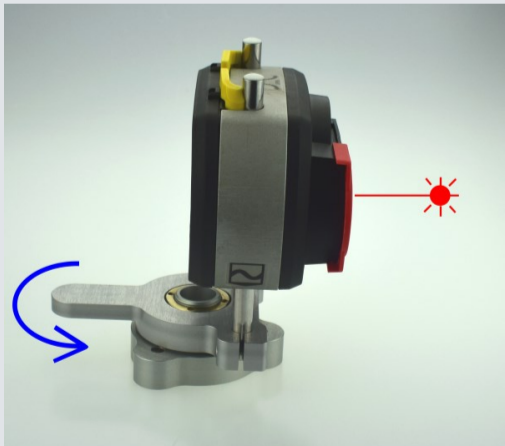
Order information

Item No.	Name
ALI 6.954	Rotatable magnetic bracket for flatness measurements

Optional accessories

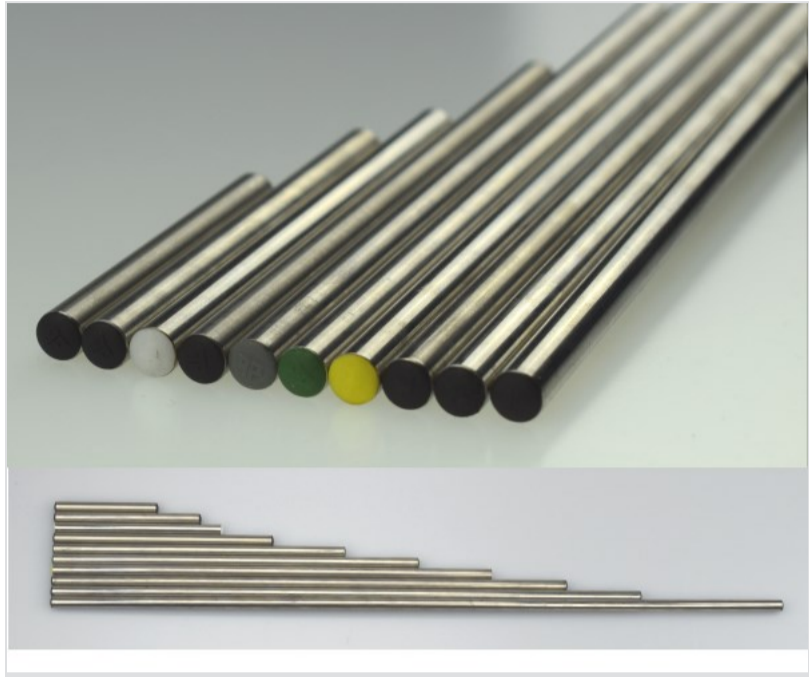
Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49

TECHNICAL INFORMATION

Typical laser adjustment sequence	
#1	 <p>Center laser on rear side of laser</p>
#2	 <p>Turn bracket by 180° -> Laser beam hits both detector areas</p>

Posts

Posts are used for mounting measuring components on different brackets.



Features

- Stainless steel tubes in different lengths
- Stable and resistant to bending
- Colored end caps
- Wall thickness: 1 mm
- Diameter: 8 mm

Order information

The following posts are available as accessory item or spare part:

Item No.	Name	Notes	Details
ALI 2.2117	Post 100 mm	black end caps	
ALI 2.170	Post 115 mm	white end caps	
ALI 2.171	Post 150 mm	black end caps	
ALI 2.172	Post 200 mm	gray end caps	
ALI 2.173	Post 250 mm	green end caps	
ALI 2.174	Post 300 mm	yellow end caps	
ALI 2.175	Post 350 mm	black end caps	
ALI 2.177	Post 70 mm	black end caps	
ALI 2.178	Post 400 mm	black end caps	
ALI 2.179	Post 495 mm	black end caps	

Note: An anti-torsion bridge is required for posts longer than 200 mm.

Mounting Adapters

Mounting adapters are used for fastening measuring components on different brackets.

Order information

Item No.	Figure	Name	Notes
ALI 6.966		LEVALIGN Expert sensor holder for posts 8 mm	including posts, 250 mm;
			Sensor holder can be rotated by 90°, enables vertical and horizontal mounting
ALI 3.194-IS		Universal mounting adapter with two holding positions for laser and sensor	including M8 screw and 2 posts, 100 mm
ALI 4.500		Magnetic foot	For magnetic surfaces with flat and curved profile (e.g., shaft) Magnetic force can be activated via rotary switch M8 thread for mounting of holding fixtures Weight: approx. 1 kg
ALI 2.789		RS5 sensor bracket for universal pointer bracket (UPB)	Application: Bracket for RS5 sensor in connection with UPB measuring fixture and universal magnetic bracket.

Anti-torsion Bridges

Anti-torsion bridges are used to stabilize the setup of retaining and measuring fixtures with long posts ($L > 200$ mm).

Order information

Item No.	Figure	Name	Application
ALI 2.191		Anti-torsion bridge for 2 posts	Shaft alignment and Live Trend measurements
ALI 2.778		Anti-torsion bridge for universal pointer bracket, UPB	Measurement of concentric components
ALI 2.463		Anti-torsion bridge for 3 posts	Alignment of cardan shafts and shafts with large diameter
ALI 2.464		Anti-torsion bridge for 3 and 4 posts	Shaft alignment with magnetic sliding bracket

PERMAFIX Bracket

This mechanical bracket is used for **Live Trend** measurements. It secures laser and sensor to the machine housing. Two ball joints enable alignment of the measuring components in nearly every direction. The posts can be mounted in the attachment unit offset by 90°.



Features

- Bolted mounting
- Two ball joints for flexible alignment
- For magnetic and non-magnetic surfaces
- Including posts (115 mm)
- Compatible with current sensor system

Order information

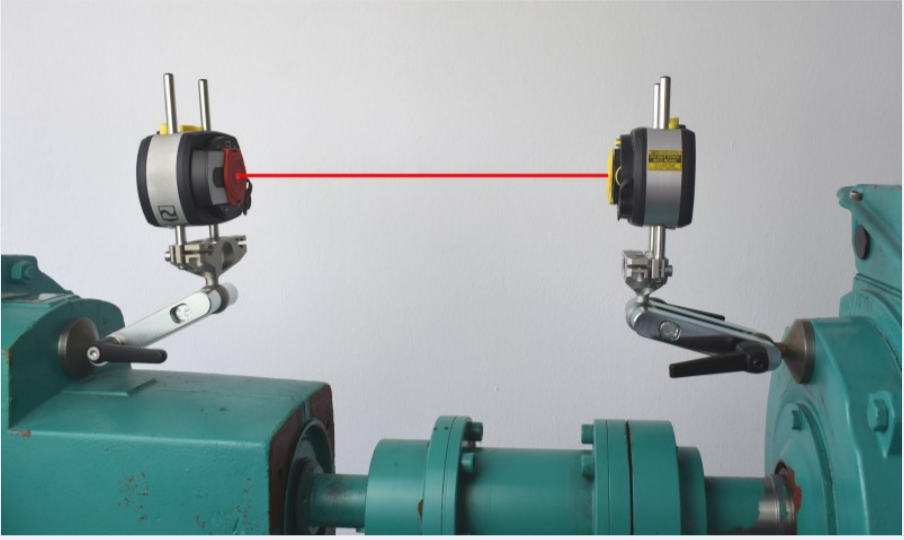
Item No.	Name	Scope of delivery
ALI 2.190	PERMAFIX Bracket	Bracket including attachment unit and mounting head Post 150 mm, 2 pcs

In addition, optional accessories and/or individual components are available as spare part:

Optional accessories

Item No.	Name	Notes	Details
Various	Posts	available in 10 different lengths	p. 49
ALI 2.191	Anti-torsion bridge for 2 posts	for posts with $L \geq 200$ mm	p. 51
ALI 2.194	Striking cone with accessories	Tool for fastening the PERMAFIX bracket to the machine housing, includes: <ul style="list-style-type: none"> • Striking cone (see figure) • Twist drill 4,2 • Tap drill HSS M5 • Hexagon wrench, size 3 and 4 	

TECHNICAL INFORMATION

Application	PERMAFIX bracket	
Live Trend		Sensor and laser each mounted to machine housing with PERMAFIX.
Dimensions	180 x 150 x 50 mm (L x W x H), without post	

Productive Maintenance Technology



PRÜFTECHNIK
85737 Ismaning, Germany
www.pruftechnik.com