

Interferometer with Plane mirror reflectors for the angle measuring

D Interferometer with cube corner reflectors for the angle measuring

Angle interferometer for the roll angle measuring

Certain measuring assignments are not resolvable with cube corner reflectors. This is always then the case when the movement of the measuring object isn't carried out in the direction of the laser beam but lateral to this. An example of it is the rolling angle measuring.

In such cases the area of reflection of a plane mirror is this flatness normal, - the measuring refers to it. For attainable measuring accuracy is important the grade of flatness of the measuring mirror causing systematic faults.

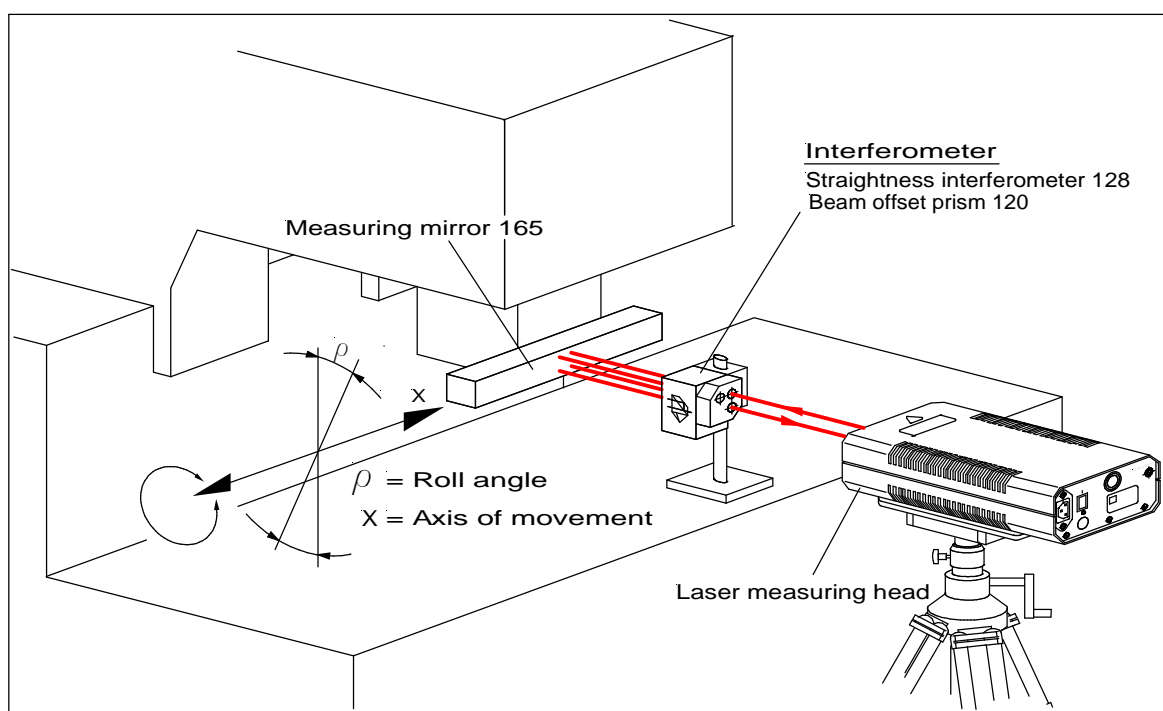


Fig. 1: Roll angle measuring with Straightness interferometer 128 and Measuring mirror 165

For roll angle measurement is necessary:

- | | |
|---|------------------------|
| 1 Straightness interferometer 128 | 269302-4012.824 |
| 1 Measuring mirror 165 | 269302-4016.524 |
| and additional, ever after in which direction is measured the tilting | |
| 1 Beam offset prism 120 | 269302-4008.424 |

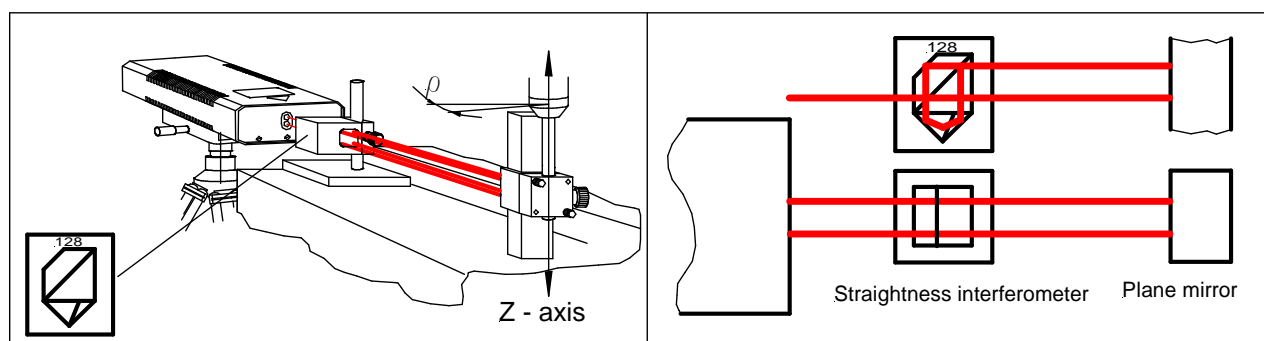
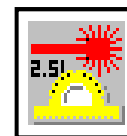


Fig. 2: Optical arrangement: angle interferometer for the roll angle measuring



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Fig. 2 shows the construction of the rolling angle measuring in vertical movement direction. The Beam offset prism is required in the case of horizontal movement direction (Fig. 2 and Fig. 4a), da der zum Lasermesskopf zurückkehrende Strahl um 90° gedreht werden muss.

Assembly

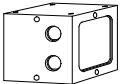
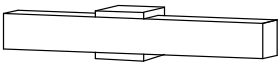
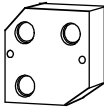
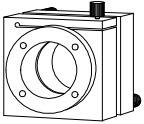
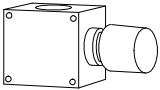
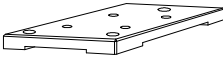
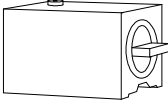


Straightness interferometer 128 269302-4012.824		Quantity:1
Measuring mirror 165 269302-4016.524		Quantity: 1
Beam offset prism 120 269302-4008.424		Quantity:1
Tiltable holder 524 269302-4010.925		Quantity: 1
Clamping device 507 269302-4010.325		Quantity: 2
Mounting plate 504 269302-4014.410		Quantity: 2
Magnetic base 506 260298-3000.128		Quantity: 2
Columns 140 / 90 or 200 260297-9900.128 140 260297-9900.228 90 260297-9900.328 200		Quantity: 2
Set of screws 269302-4005.624		Quantity: 1

Fig. 3: Optical and mechanical components to measurement roll angle

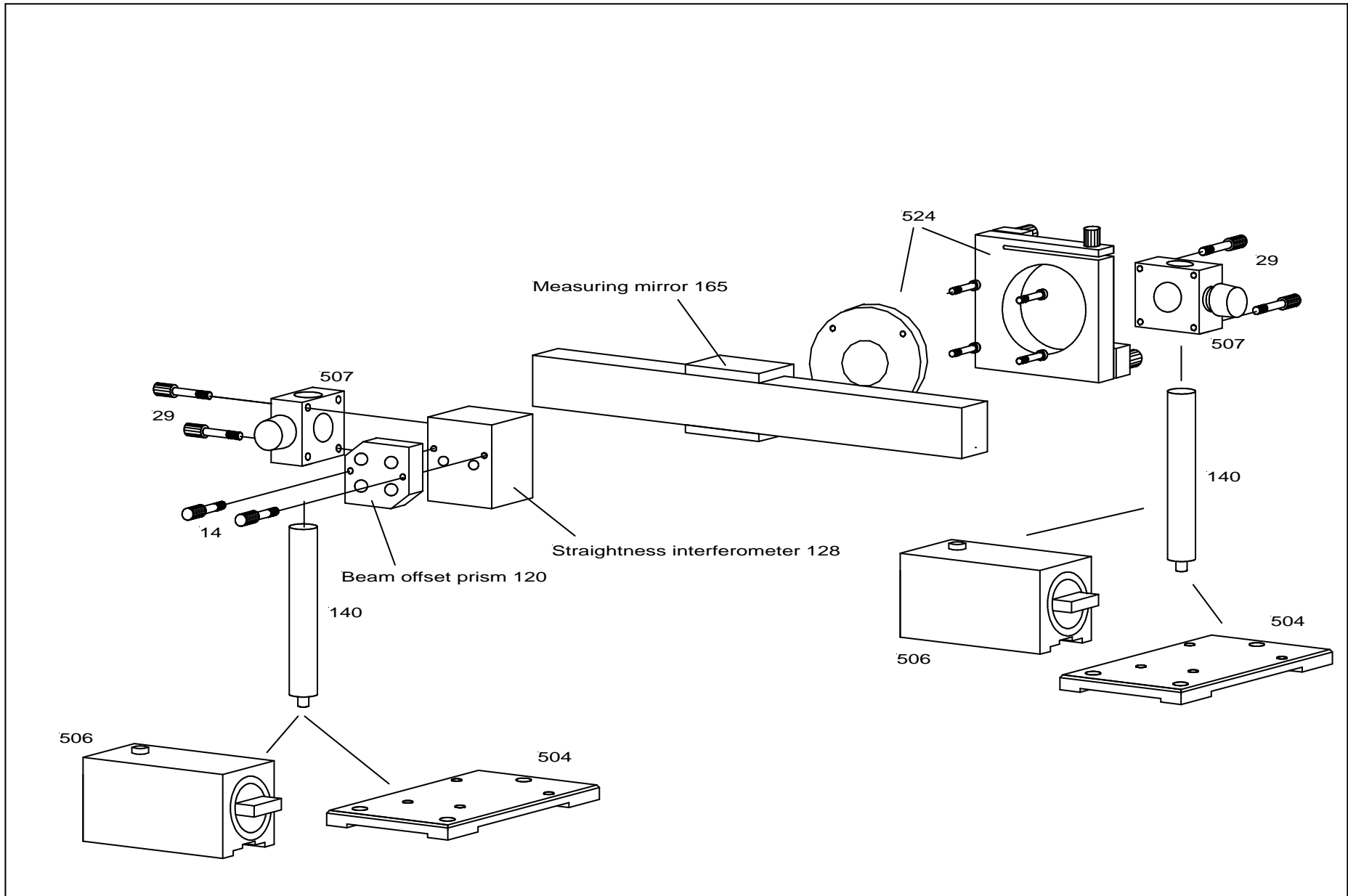


Fig. 4a: Roll angle measurement with straightness interferometer - horizontal configuration

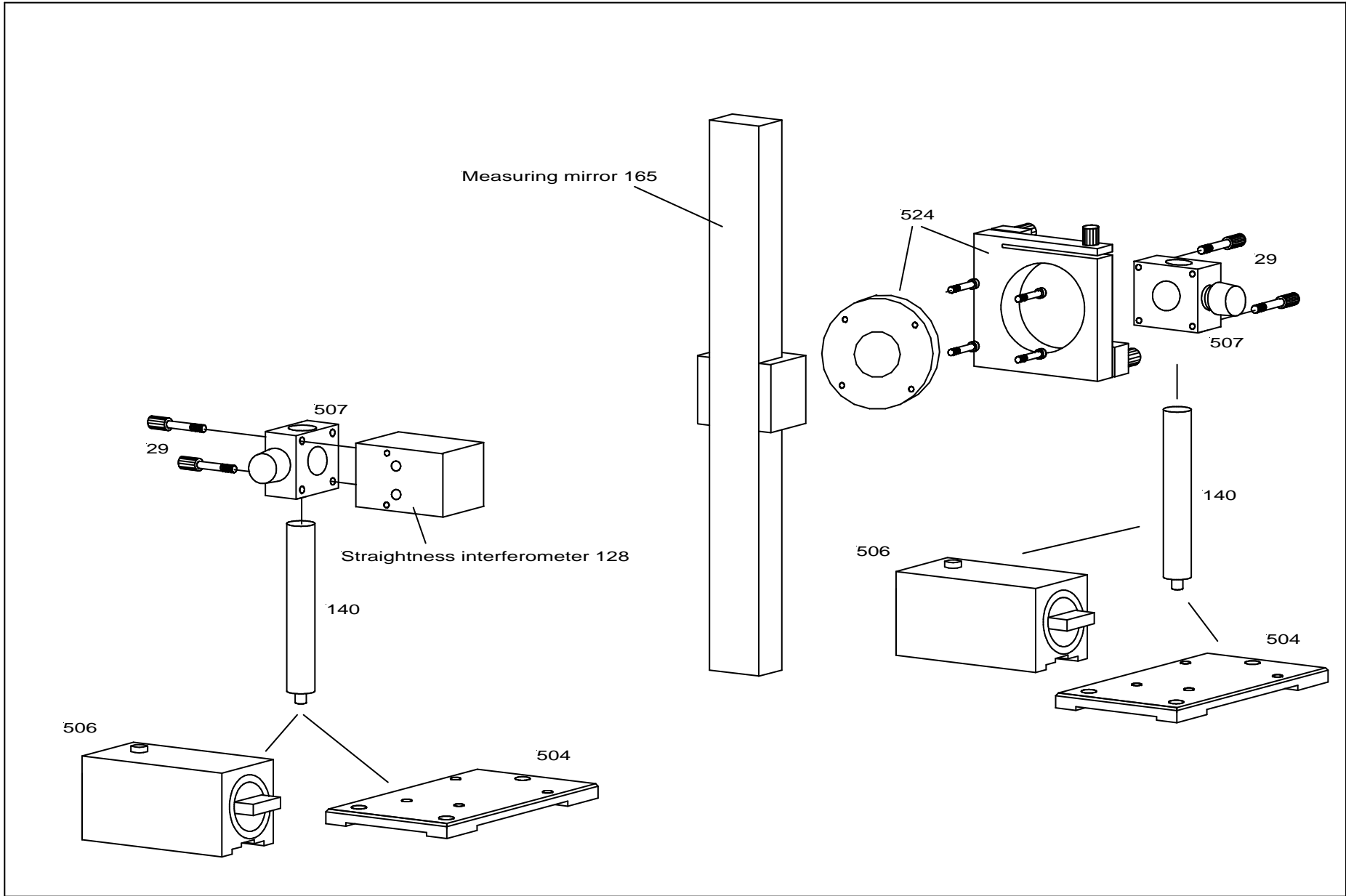


Fig. 4b: Roll angle measuring with straightness interferometer - vertical configuration