Product	**XK20 launch unit**
Serial number	**AL3Y71**
Test date	**24 June 2025**

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Certificate of conformity

We certify that this product measures to within the following specification when used as part of a calibrated system and following procedures outlined in the user guide.

Straightness performance	
Accuracy*	±0.008A ±0.8 µm
Resolution	0.1 µm

Squareness performance	
Accuracy**	±0.008A/M ±1.4/M ±10 µm/m
Accuracy***	±0.008A/M ±1.4/M ±4 µm/m
Resolution	0.1 µm

Flatness performance	
Accuracy****	±0.01A±1±(1+1.1M) µm
Resolution	0.1 µm

* Provided measurement is within ±500µm of PSD centre
** Without squareness calibration factor
*** With squareness calibration factor
**** Within a 90° sector of launch unit rotation

M = Axis measurement distance (m)
A = Maximum absolute PSD deviation during measurement (µm)

Accuracy values are reported to a statistical confidence of 95% (k=2).

We certify that this instrument has been tested and complies with our published standards and specifications.

Authorised signature	Signatory	Position	Issue date
	Dave Wall	Director and General Manager	27 August 2025

Renishaw plc
Laser & Calibration Products Division
Bath Road, Woodchester
Stroud
Gloucestershire
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United Kingdom
Tel. +44 (0) 1453 524524

Product	**XK20 M unit**
Serial number	**ALC034**
Test date	**24 June 2025**

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Certificate of conformity

We certify that this product measures to within the following specification when used as part of a calibrated system and following procedures outlined in the user guide.

Straightness performance	
Accuracy*	±0.008A ±0.8 µm
Resolution	0.1 µm

Squareness performance	
Accuracy**	±0.008A/M ±1.4/M ±10 µm/m
Accuracy***	±0.008A/M ±1.4/M ±4 µm/m
Resolution	0.1 µm

Flatness performance	
Accuracy****	±0.01A±1±(1+1.1M) µm
Resolution	0.1 µm

* Provided measurement is within ±500µm of PSD centre
** Without squareness calibration factor
*** With squareness calibration factor
**** Within a 90° sector of launch unit rotation

M = Axis measurement distance (m)
A = Maximum absolute PSD deviation during measurement (µm)

Accuracy values are reported to a statistical confidence of 95% (k=2).

We certify that this instrument has been tested and complies with our published standards and specifications.

Authorised signature	Signatory	Position	Issue date
	Dave Wall	Director and General Manager	27 August 2025

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Product	**XK20 S unit**
Serial number	**ALC000**
Test date	**24 June 2025**

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Certificate of conformity

We certify that this product measures to within the following specification when used as part of a calibrated system and following procedures outlined in the user guide.

Spindle Performance	
Accuracy (Vertical)	±3 um / 300 mm
Accuracy (Horizontal)	±3 um / 300 mm
Resolution	0.1 µm

Coaxiality Performance	
Accuracy (angle)	±1 um/100 mm
Accuracy (offset)	±1 um
Resolution	0.1 µm

We certify that this instrument has been tested and complies with our published standards and specifications.

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	Dave Wall	Director and General Manager	27 August 2025

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Product	**XK20 pentaprism optic**
Serial number	**ALC036**
Test date	**24 June 2025**

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Certificate of conformity

We certify that this product measures to within the following specification when used as part of a calibrated system and following procedures outlined in the user guide.

Parallelism performance	
Accuracy (i) *	±0.008A/M ±1.4/M ±2 µm/m
Accuracy (ii) *:	±0.008A ±1.4 ±2M µm
Resolution:	0.1 µm

* laser to pentaprism distance > 0.2 m

A = (largest) straightness reading (µm)
M = length of the axis (m)

i. To be used when the quantity of interest is the angle between rails.

ii. To be used when parallelism between rails is:

- specified as a tolerance zone defined by two parallel lines parallel to a datum axis (for example, reference rail) within where the axis of the feature (for example, measurement rail) must lie.
- intended as a point by point variation in the separation between the rails, with respect to the separation between the first two points

We certify that this instrument has been tested and complies with our published standards and specifications.

Authorised signature	Signatory	Position	Issue date
	Dave Wall	Director and General Manager	27 August 2025

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