

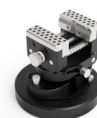
# Renishaw metrology fixtures and precision styli for Equator-X™ 500 gauging systems

Renishaw's Equator-X system brings unique capability to the shop floor with its dual measurement functionality; Absolute and Compare. Users can select the optimum inspection method for their process challenge, effectively deploying two systems in one.

To expand the functionality of the Equator-X 500 system, we provide a selection of styli and fixturing accessories. These components support a wide range of measurement tasks and help maintain high performance across different applications.

## Features and benefits

- Fixturing solutions can be assembled quickly to base plates, which increases throughput and avoids downtime in inspection.
- Our modular fixturing solutions are designed to provide a repeatable and reproducible base for metrology inspections.
- Set-ups can be documented and repeated with accuracy using our alpha-numerically labelled base plates and FixtureBuilder software.
- Our fixtures and styli are available in sets which can be expanded to create a bespoke solution for your requirements.



## Base plates for Equator-X 500 gauging systems

Renishaw's fixturing base plates provide a platform for fixtures on an Equator-X 500 gauging system.

The base plates mount directly to the system bed utilising a kinematic mounting system.

The base plates are precision-machined to tight tolerances, making set-ups reliable and repeatable.

Base plates are available in M6, M8 and 1/4-20 thread sizes.

Part number	Thread type	Hole spacing
R-PCX-10510510-25-6	M6	25 mm
R-PCX-10510510-30-8	M8	30 mm
R-PCX-402020-1-20	1/4-20	1 in



## 3-jaw chuck

3-jaw chucks are for holding workpieces and have jaws that can be removed and reversed. Workpieces can be held by their outer diameter (OD) or inner diameter (ID).

Part number	Material	Thread	Height	OD clamping range	ID clamping range
R-CJE-3	Aluminium*	M6/ M8/ 1/4-20	35.5 mm/ 1.40 in	0.7 mm to 96.0 mm/ 0.03 in to 3.78 in	20.0 mm to 80.0 mm/ 0.79 in to 3.15 in

**NOTE:** Includes socket cap head screws.

**NOTE:** \*Jaws are aluminium. Chuck mechanism contains steel.



## Rotational angle vice

A flexible and versatile vice that allows variable orientation of your workpieces. Provides quick, convenient staging for a variety of workpieces. Pivot range from 0° to 90° and rotational range of 360°.

Part number	Material	Thread	Height	Jaws	Adjustments
R-CRAV	Aluminium	M4/ M6/ 1/4-20	91.8 mm/ 3.61 in	32.0 mm/ 1.26 in	1.0 mm to 63.0 mm/ 0.04 in to 2.48 in

**NOTE:** Jaws are steel as standard but aluminium jaws are available as an option.



## Fixturing component sets

Renishaw fixturing sets come in a variety of sizes and feature different thread types to meet your application needs.

The components are manufactured using durable 303 stainless steel or anodised 6082 aluminium which ensures longevity.

The sets are housed within a practical storage case and include everything you need to create fixtures to suit your workpiece sizes and shapes.

You can expand the standard sets with our range of compatible add-ons, including magnets and standoffs.



Part number	Size	Number of components	Thread type
R-C-SET-INT-6	Intermediate	111	M6
R-C-SET-INT-8	Intermediate	111	M8
R-C-SET-INT-20	Intermediate	111	1/4-20
Magnet add-on sets			
R-M-SET-BSC-6	Basic	12	M6
R-M-SET-BSC-8	Basic	12	M8
R-M-SET-BSC-20	Basic	12	1/4-20
R-M-SET-INT-6	Intermediate	25	M6
R-M-SET-INT-8	Intermediate	25	M8
R-M-SET-INT-20	Intermediate	25	1/4-20
Standoff add-on sets			
R-S-SET-BSC-6	Basic	34	M6
R-S-SET-BSC-8	Basic	34	M8
R-S-SET-BSC-20	Basic	34	1/4-20

## Styli kits

Renishaw styli kits come in a variety of sizes and are tailored to suit the Equator-X 500 system's metrology applications.

Each kit includes a variety of stylus components, such as stylus holders, ruby styli, extensions, star styli and knuckles.

Our kits offer the modularity and reliability engineers need to address metrology challenges, whether dealing with tight tolerances or complex geometries.



Part number	Description	Number of components
A-5000-0076	Equator-X 500 basic stylus kit	17
A-5000-0077	Equator-X 500 advanced stylus kit	30
A-5000-0078	Equator-X 500 OPTiMUM™ diamond stylus kit	12
A-5000-0084	Equator-X 500 OPTiMUM™ diamond advanced stylus kit	16

### A-5000-0076 - Equator-X 500 basic stylus kit

Part number	Description	Quantity
A-2237-1702	SH25-2A holder	1
A-5004-5101	SH25-2 holder with 5-way connector	1
A-5000-3603	M2, Ø2 mm, ruby ball with stainless steel stem, length 20 mm	5
A-5000-7806	M2, Ø1 mm, ruby ball with stainless steel stem, length 10 mm, EWL* 4.5 mm	1
A-5003-0044	M2, Ø4 mm, ruby ball with tungsten carbide stem, length 40 mm, EWL* 40 mm	1
A-5003-2280	M2, carbon fibre extension, length 40 mm	1
A-5004-7591	M2, stainless steel extension, length 30 mm	1
A-5004-7585	M2, stainless steel extension, length 10 mm	1
A-5004-7592	M3 to M2 stainless steel adaptor, length 5 mm	2
A-5000-7809	M2, Ø18 mm, silver steel disc, width 1.5 mm with roller	1
A-5004-7582	M2/M3 tightening tool	2
—	Case	1

**NOTE:** EWL\* - Effective working length.

## A-5000-0077 - Equator-X 500 advanced stylus kit

Part number	Description	Quantity
A-2237-1702	SH25-2A holder	2
A-5004-5101	SH25-2 holder with 5-way connector	1
A-5000-3603	M2, Ø2 mm, ruby ball with stainless steel stem, length 20 mm	5
A-5000-7806	M2, Ø1 mm, ruby ball with stainless steel stem, length 10 mm, EWL* 4.5 mm	2
A-5003-0044	M2, Ø4 mm, ruby ball with tungsten carbide stem, length 40 mm, EWL* 40 mm	2
A-5003-4862	M3, Ø8 mm, ruby ball with carbon fibre stem, length 75 mm, EWL* 75 mm	1
A-5003-2280	M2, carbon fibre extension, length 40 mm	2
A-5004-7591	M2, stainless steel extension, length 30 mm	2
A-5004-7585	M2, stainless steel extension, length 10 mm	2
A-5004-7592	M3 to M2 stainless steel adaptor, length 5 mm	3
A-5000-7809	M2, Ø18 mm, silver steel disc, width 1.5 mm with roller	1
A-5555-0297	M2, Ø8 mm, ceramic disc, width 1.5 mm without roller	1
A-5000-7811	M2, 4 ball star, Ø1 mm ruby balls, 10 m span	1
A-5000-3627	M2, 5-way stylus centre, length 7.5 mm	1
A-5000-9902	M2, rotary knuckle, length 16.5 mm	2
A-5004-7582	M2/M3 tightening tool	2
—	Case	1

**NOTE:** EWL\* - Effective working length.

## A-5000-0078 - Equator-X 500 OPTiMUM™ diamond stylus kit

Part number	Description	Quantity
A-2237-1702	SH25-2A holder	1
A-5004-5101	SH25-2 holder with 5-way connector	1
A-5000-0139	M2, Ø2 mm, diamond coated ball with stainless steel stem, length 20 mm, EWL* 14.0 mm	1
A-6560-5304	M2, Ø1 mm, diamond coated ball with tungsten carbide stem, length 10 mm, EWL* 4.0 mm	1
A-5000-0138	M2, Ø4 mm, diamond coated ball with tungsten carbide stem, length 40 mm, EWL* 40 mm	1
A-5003-2280	M2, carbon fibre extension, length 40 mm	1
A-5004-7591	M2, stainless steel extension, length 30 mm	1
A-5004-7585	M2, stainless steel extension, length 10 mm	1
A-5004-7592	M3 to M2, stainless steel adaptor, length 5 mm	2
A-5004-7582	M2/M3 tightening tool	2
—	Case	1

**NOTE:** EWL\* - Effective working length.

## A-5000-0084 - Equator-X 500 OPTiMUM™ diamond advanced stylus kit

Part number	Description	Quantity
A-2237-1702	SH25-2A holder	1
A-5004-5101	SH25-2 holder with 5-way connector	1
A-5000-0139	M2, Ø2 mm, diamond coated ball with stainless steel stem, length 20 mm, EWL* 14.0 mm	5
A-6560-5304	M2, Ø1 mm, diamond coated ball with tungsten carbide stem, length 10.0 mm, EWL* 4.0 mm	1
A-5000-0138	M2, Ø4 mm, diamond coated ball with tungsten carbide stem, length 40 mm, EWL* 40.0 mm	1
A-5003-2280	M2, carbon fibre extension, length 40 mm	1
A-5004-7591	M2, stainless steel extension, length 30 mm	1
A-5004-7585	M2, stainless steel extension, length 10 mm	1
A-5004-7592	M3 to M2, stainless steel adaptor, length 5 mm	2
A-5004-7582	M2/M3 tightening tool	2
–	Case	1

**NOTE:** EWL\* - Effective working length.

## Datum spheres

Datum spheres are made from hard-wearing tungsten carbide and come supplied with a UKAS certificate stating the ball diameter and roundness.

Part number	Type	Datum ball diameter
A-1034-0026	Datum ball kit	25 mm
A-1034-0027	Datum ball kit	19 mm
A-1034-1028	Datum ball kit	12 mm
A-1034-0031	Datum ball kit	0.75 in
A-1034-0035	Datum ball kit	1.00 in
A-1034-0352	M6 fixing stud	–
A-1034-0351	M8 fixing stud	–

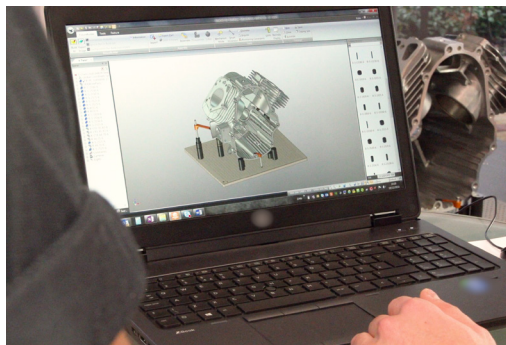




## 3D fixture modelling software

FixtureBuilder is 3D fixture modelling software for creating fixturing set-ups. You can drag and drop component models onto the base plate or another component.

The 'Build it' feature generates work instructions and supports offline programming for CMM, Equator™ gauging, and vision inspection.



## 12-month subscription service

We offer a complimentary 12-month subscription to our FixtureBuilder 3D modelling software with the purchase of qualifying products.

For subscription or perpetual licences, visit our Online store or contact your local Renishaw office.

Part number	Licence description
CS-SOF-SW-17-FBCU	FixtureBuilder licence sold with Renishaw Licence Manager software.
CS-SOF-SUBS-17-FBNU	Annual subscription. Sent as an activation code for named user.
CS-SOF-SW-17-FBNRMS	Renishaw Licence Manager software. Controlled licence.
CS-SOF-SW-17-FBNU	FixtureBuilder licence Distributed via download.
CS-SOF-SW-17-FBTRANS	Additional translator module for CATIA, ProE, UGNX, Solidworks and Inventor. Distributed via download.
A-6490-0052	FixtureBuilder licence for offline users. Distributed on a dongle, transferable between work stations.
A-6490-0055	Renishaw Licence Manager hardware. Dongle controlled.

## Training and support from Renishaw

To access a free 30 day trial, watch training videos, read our frequently asked questions and learn more about our support services, visit [www.renishaw.com/fixturebuilder](http://www.renishaw.com/fixturebuilder).

[www.renishaw.com/contactus](http://www.renishaw.com/contactus)



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