

















QC20 ballbar spares list

Introduction

This application note lists the available spares for the QC20 ballbar.

To order please contact your local [Renishaw office](#) or purchase from our [online store](#).

Description	Part number	
<p>Ballbar calibrator</p> <p>A ballbar calibrator is supplied with all QC20 ballbar kits and is used to calibrate the length of a ballbar. The calibrator is manufactured from a material which has a temperature expansion coefficient of almost zero. A calibration certificate is included.</p>	A-8014-0280	
<p>Cover ring</p> <p>The cover ring protects the thread on the QC20 ballbar body. Used with the small circle adaptor.</p>	A-8014-1592	
<p>Tool cup assembly</p> <p>The condition of the phosphor bronze bearings in the tool cups affects the errors measured by the transducer. Tool cups cannot be repaired (if they are damaged they must be replaced).</p>	A-8014-0521	
<p>Tool cup extension</p> <p>Allows 220° testing using collet shanks up to ER40. Extension diameters are $\varnothing 12$ mm and $\frac{1}{2}$" to suit metric and imperial collets.</p>	A-8014-1610	
<p>Transducer ball</p> <p>A transducer ball is used at the moving end of the ballbar. The sphericity of the ball can be affected if the unit is dropped. Should this occur the ball should be replaced.</p>	A-8014-0182	
<p>Battery end cap assembly</p> <p>The battery end cap assembly is supplied with a centre ball fitted.</p>	A-8014-1506	
<p>Centre ball</p> <p>A centre ball is used at the fixed end of the ballbar. The sphericity of the ball can be affected if the unit is dropped. Should this occur the ball should be replaced.</p>	A-8014-0141	

<p>Centre pivot assembly</p> <p>The magnetic centre pivot assembly has a clamping mechanism that can be locked/unlocked by pulling the lever to the horizontal/vertical position. The centre pivot assembly is supplied with a centre cup fitted.</p>	<p>A-8014-1281</p>	
<p>Centre cup</p> <p>Poor condition of the phosphor bronze bearings in the centre cup can affect the results reported by the ballbar. Centre cups cannot be repaired (if they are damaged they must be replaced).</p>	<p>A-8014-0522</p>	
<p>Setting ball</p> <p>The setting ball is placed into the centre mount cup when setting the zero co-ordinates for a test.</p>	<p>A-8014-1570</p>	
<p>Extension bars</p> <p>By assembling the ballbar with different combinations of extension bars it is possible to carry out ballbar tests with 100, 150, 250, 300, 400, 450, 550 or 600 mm radii.</p>	<p>Length 50 mm A-8014-0231 Length 150 mm A-8014-0144 Length 300 mm A-8014-0145</p>	
<p>Spanner set</p> <p>The C spanners are used to secure the screw joints on the ballbar. The ring spanner is used to secure the battery end cap onto the ballbar.</p>	<p>A-8014-1141</p>	
<p>Validation card</p> <p>Double sided card for recording ballbar test results and displaying on the machine tested (insert into card holder below). Note: to be ordered in minimum quantities of 10 off.</p>	<p>M-8014-1576</p>	
<p>Validation card holder</p> <p>Plastic wallet with self-adhesive back to attach to the machine. Note: to be ordered in minimum quantities of 10 off.</p>	<p>P-TL02-0037</p>	
<p>Cup cleaning kit</p> <p>The tool cups are magnetic and may attract steel swarf and chips into the cup during use. Clear any swarf from the cups before storing them away with the cleaning kit.</p>	<p>A-8014-0423</p>	
<p>QC20 small circle adaptor</p> <p>The small circle adaptor allows a 50 mm diameter test to be performed. By removing the cover ring, the adaptor is a simple screw fitting to the main ballbar body. Supplied with an additional centre ball already fitted.</p>	<p>A-8014-1560</p>	

<p>50 mm ballbar calibrator</p> <p>Used to calibrate a ballbar when using the small circle accessory kit. The 50 mm ballbar calibrator includes a calibration certificate.</p>	<p>A-8014-0491</p>	
<p>Spindle bar assembly (Lathe adaptor kit)</p> <p>The spindle bar allows one end of the ballbar to be held in the spindle of a lathe. This part includes a spherical adaptor with magnetic centre cup.</p>	<p>A-8014-0553</p>	
<p>Cup screw assembly (Lathe adaptor kit)</p> <p>Used in the lathe arm, the cup screw assembly is supplied with a centre cup already fitted.</p>	<p>A-8014-0552</p>	
<p>VTL adaptor kit</p> <p>The VTL adaptor kit is for 2-axis CNC applications, e.g. vertical turning lathes. This replaces the tool cup in the standard set-up and gives restricted movement of the centre cup in a single axis.</p> <p>The VTL adaptor enables typical 2-axis machines, such as vertical turning lathes and laser cutting machines, to benefit from QC20 ballbar diagnosis.</p>	<p>A-8014-0417</p>	
<p>360° lathe adaptor kit</p> <p>The 360° lathe adaptor kit allows the QC20 ballbar to perform 360°, 100 mm radius ballbar tests on a lathe. The arm assembly attaches to the lathe turret and the spindle bar attaches to the lathe spindle. Both arm and spindle bar include magnetic cups to locate the ballbar.</p> <p>Note: On lathes with restricted axis travel, it may be possible to perform a 50 mm radius test using the small circle accessory kit. It is crucial to ensure that there is clearance for the ballbar in this configuration before performing the test.</p>	<p>A-8014-0551</p>	
<p>QC20 small circle adaptor kit</p> <p>The QC20 small circle accessory kit allows the QC20 ballbar to perform a calibrated 50 mm radius tests (standard minimum is 100 mm), helping to give an enhanced analysis of servo control systems on most type of machines.</p>	<p>A-8014-1540</p>	
<p>Partial arc kit</p> <p>The partial arc kit allows you to carry out a 220° partial arc test with a QC20 ballbar. The ability to carry out tests in all three planes (XY, XZ and YZ) from a single set-up.</p>	<p>A-8014-1575</p>	
<p>QC20 ballbar carry case</p> <p>A protective case with specifically designed inserts for safe and clean storage of the QC20 ballbar and accessories. Dimensions: 395 mm length, 300 mm width, 105 mm depth, weight empty 3 kgs, weight when loaded 3.75 kgs</p>	<p>A-8014-1700</p>	