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JCP job contact probe

Compliance information for this product is available by scanning the QR code or visiting **www.renishaw.com/mtpdoc**

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Contents

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Before you begin

Warranty

Unless you and Renishaw have agreed and signed a separate written agreement, the equipment and/or software are sold subject to the Renishaw Standard Terms and Conditions supplied with such equipment and/or software, or available on request from your local Renishaw office.

Renishaw warrants its equipment and software for a limited period (as set out in the Standard Terms and Conditions), provided that they are installed and used exactly as defined in associated Renishaw documentation. You should consult these Standard Terms and Conditions to find out the full details of your warranty.

Equipment and/or software purchased by you from a third-party supplier is subject to separate terms and conditions supplied with such equipment and/or software. You should contact your third-party supplier for details.

Machine tools

Machine tools must always be operated by fully-trained personnel in accordance with the manufacturer's instructions.

Care of the probe

Keep system components clean and treat the probe as a precision tool.

Patents

None applicable.

Intended use

JCP is an inspection probe that enables workpiece inspections and simple job set-up on manual machine tools.

Safety

Information to the user

In all applications involving the use of machine tools, eye protection is recommended.

JCP probes must be installed by a competent person, observing relevant safety precautions. Before starting work, ensure that the machine tool is in a safe condition with the power switched OFF.

Refer to the machine supplier's operating instructions.

Information to the machine supplier / installer

It is the machine supplier's responsibility to ensure that the user is made aware of any hazards involved in operation, including those mentioned in Renishaw product literature, and to ensure that adequate guards and safety interlocks are provided.

If the probe system fails, the output signal may falsely indicate a probe seated condition. Do not rely on probe signals to halt the movement of the machine.

Information to the equipment installer

All Renishaw equipment is designed to comply with the relevant UK, EU and FCC regulatory requirements. It is the responsibility of the equipment installer to ensure that the following guidelines are adhered to, in order for the product to function in accordance with these regulations:

- any interface MUST be installed in a position away from any potential sources of electrical noise (for example, power transformers, servo drives);
- all 0 V/ground connections should be connected to the machine "star point" (the "star point" is a single point return for all equipment ground and screen cables). This is very important and failure to adhere to this can cause a potential difference between grounds;
- all screens must be connected as outlined in the user instructions;
- cables must not be routed alongside high current sources (for example, motor power supply cables), or be near high-speed data lines;
- cable lengths should always be kept to a minimum.

Equipment operation

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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JCP probe basics

Introduction

JCP is an inspection probe designed specifically for use with manual machine tools and is ideal for measuring height and depth, internal and external features, datum edges, centring, and measuring bores.

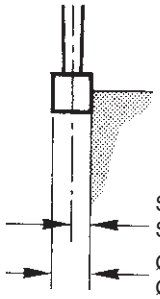
When the probe contacts the workpiece, the red LED lights up.

Repeatability

CAUTIONS:

Overtravel must not be exceeded or damage will result.

The probe must not be spun under spindle power



Stylus position repeatability (maximum 2σ): 1.00 µm (40 µin)

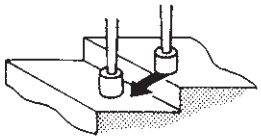
The stylus radius must be taken into account when necessary.
Inner diameter: Measured distance + 6.0 mm for metric version or + 0.2 in for imperial version
Outer diameter: Measured distance – 6.0 mm for metric version or – 0.2 in for imperial version

The stylus has 14.97 mm (0.59 in) overtravel in X and Y axes, and 4.83 mm (0.19 in) in the Z axis.

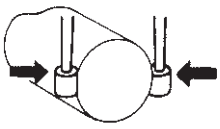
Application examples

Direct measurement of steps, slots, external features, and contours of workpiece datum surfaces or edges.

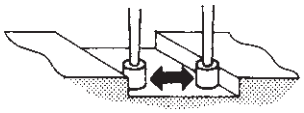
Measuring height and depth



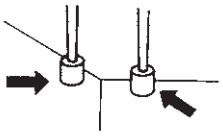
Measuring external features



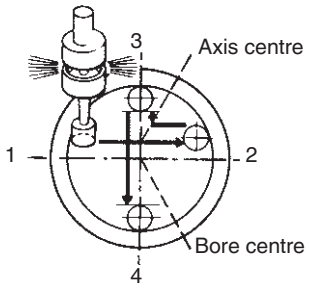
Measuring internal features



Measuring datum edges



Defining bore centres in line with spindle centre line.

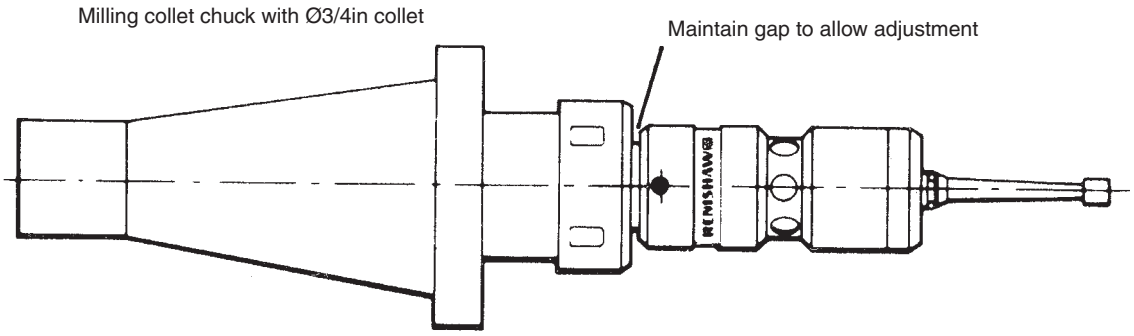


1. Contact the sides of the bore with the stylus (1 and 2).
2. Halve the measurement between 1 and 2 to obtain the axis centre.
3. Touch on points 3 and 4.
4. Halve the measurement between 3 and 4 to obtain the bore centre.

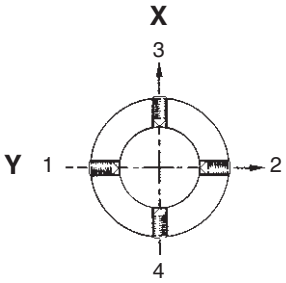
Installation

Installation on taper shanks and adjustment for out of roundness

The shank adaptor and stylus must be adjusted when assembled to achieve concentricity of 0.1 mm (0.004 in).



Adjustment



1. To move the stylus in X direction loosen adjusting screws 2 and 4.
2. Move the stylus into the measuring position by adjusting screws 1 and 3 with the two centring tools provided.
3. Similar adjustment is used to move the stylus in the Y direction.
4. Ensure all screws are tightened after adjustment is complete.

NOTE: Ensure probe is not splashed with coolant

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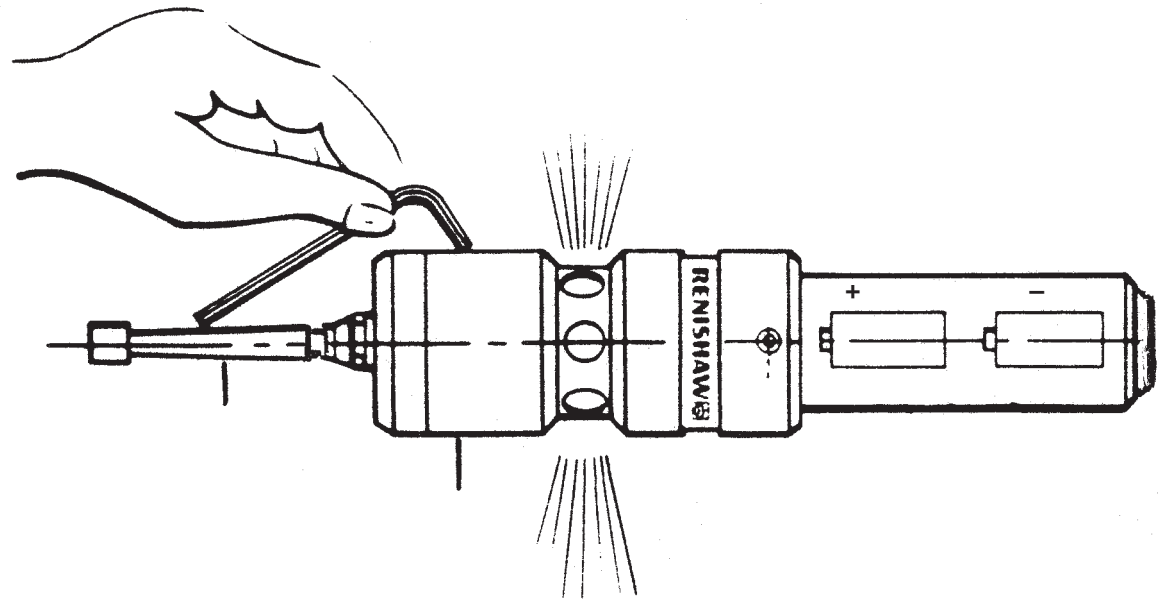
JCP maintenance

The probe is a precision tool, handle with care. Ensure the probe is firmly secured to its mounting.

Batteries

To change the batteries



1. Unscrew the cap.

NOTE: The polarity of the batteries.

2. Remove exhausted batteries.
3. Insert new batteries (see **page 5-1** “parts list”).
4. Replace cap.

To check the battery power

Make a contact between the end points of the battery with a metal object (e.g. hexagon key).

LEDs will light up if batteries are correctly fitted.

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Parts list

Item	Part number	Description
JCP (metric)	A-2066-0001	Job contact probe.
JCP (Imperial)	A-2065-0001	Job contact probe.
Batteries	LR1 (IEC number)	1.5 V battery.
Publications. These can be downloaded from our website at **www.renishaw.com**.		
JCP	H-2000-5054	Installation guide: for set-up of the Job contact probe.

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