

TO SET UP

Software has to be cleared:

- 1) **Switch on**
- 2) **Go to the set-up**
- 3) **Press the key “clear”**
- 4) **Wait until alarm signal finishes**
- 5) **Make a new start, also new calibration.**

Toolset

Initial steps and operating instructions.

Section 1

Setting up

The instrument should be shipped upright only and inspected after unpacking for any damage in transit. To remove the shipping base, it is best to slide just one edge of the base at a time over the table end, so as to undo the screw at that point.

The unit should be installed on a stable support in an environment that is as dust-free as possible and near a 220V plug (line voltage adapter).

Strong electrical interference fields (high-power engines, welding equipment and the like) are to be avoided.

The counter-weight is to be fastened with a screw used to anchor the unit during transit. Do not slide the measuring carriage before removing the screw and cleaning the guide rails of any packaging debris.

Adjustment and locking

Coarse adjustment for both axes is carried out by turning the control grips on the measuring carriage to the right or left. Locking of the axes is carried out in the mid-position of the control grips (fine adjustment function). Do not turn out the control grips completely.

Diameter fine adjustment is carried out by turning the control button on the front face.

Vertical fine adjustment is carried out using the handwheel on the instrument foot at the side.

Precision bearing

The bearing and receiving cone are to be cleaned before a tool is inserted. The precision bearing has a test collar with reference diameter and height for scale calibration (R 44.45mm/R 1.750 inch engraved in the handwheel).

PROGRAMMING OPTIONAL ZERO POINTS TO MEMORY

- 1) Press the '**ESC**' button.
- 2) Using the arrow up or arrow down buttons, highlight the '**SET UP**' function and press the '**SET**' button.
- 3) Press the number '**1**' button.
- 4) Using the arrow up or arrow down buttons, highlight an available zero point.
- 5) Press the '**SET**' button.
- 6) Press the number '**1**' button. This will highlight the first character in the name field.
- 7) To change the letter, use the **Arrow Up** or **Arrow Down** buttons to change to the next character, use the **Arrow Right** or the **Arrow Left** buttons.
- 8) Display lines 2 and 3 are for entering the zero point offset values. Using the numbered keys, enter the offset values. *Note: if these values are set at 0.0000 inch, the spindle or base values will be in effect as the zero point values.*
- 9) Press the '**SET**' button.
- 10) Press the number '**5**' button.
- 11) Press the number '**4**' button.
- 12) The machine control will automatically highlight the measure function.
- 13) Press the '**SET**' button.
- 14) When the measurement screen appears, press the '**SET**' button.
- 15) Press the '**TOOL**' button.
- 16) Using the arrow buttons, **ARROW UP** or **ARROW DOWN** to the named zero point.
- 17) Press the '**SET**' button.
- 18) The machine is now ready to measure tools using that zero point.

USING A LABEL PRINTER WITH A DIASET MODEL PRESETTER

- 1) Connect a parallel printer cable to the bottom of the presetter and to the printer.
- 2) Turn power '**ON**' on the printer.
- 3) To print, press the '**HOLD**' button.
- 4) Press the '**X**' button.
- 5) Press the '**HOLD**' button
- 6) Press the '**Z**' button.
- 7) Press the '**PRINT**' button.
- 8) Using the number buttons, enter a tool number.
- 9) Press the '**SET**' button.
- 10) Follow steps #4 through to #6 to release the display.

- 1) Press the '**ESC**' button.
- 2) Using the up or down arrow buttons, highlight the set-up function and press the '**SET**' button.
- 3) The display will show the set-up menu.
- 4) Press the button with the number '**1**' on it.
- 5) The display will show the zero point menu.
- 6) Using the up and down arrow buttons, highlight the **base** and press the '**SET**' button.
- 7) The display will show dashed lines where numbers should be.
- 8) Move the '**X**' axis to it's furthest point **away** from the spindle.
- 9) Slowly move the '**X**' axis **toward** the spindle until numbers appear in the display.
- 10) Move the '**X**' axis to measure the **O.D.** of the spindle lip, and zero the indicator.
- 11) Press '**SET**' twice.
- 12) Move the '**Z**' axis to it's furthest position **away** from the spindle.
- 13) Slowly move the '**Z**' axis **toward** the spindle until numbers appear in the display.
- 14) Move the '**Z**' axis to measure the top face of the spindle, and zero the indicator.
- 15) Press '**SET**' twice.
- 16) Press the button with the number '**4**' on it.
- 17) The machine is now ready to measure tools.

OPERATION INSTRUCTIONS FOR DIASET MODEL PRESETTERS

START-UP PROCEDURES

- 1) Move both axis to their furthest positions **away** from the spindle.
- 2) Turn '**ON**' the power by flipping down the toggle switch on the back panel of the machine.
- 3) The introduction screen will appear in the display. This screen will be displayed for five seconds.
- 4) The display will then change to read: '**Welcome to Toolset Tool Management System**'. At this time, you are also given a choice between the measurement and set up functions. Use the up or down arrows to highlight the measurement function and press the '**SET**' button.
- 5) Slowly move both axis **toward** the spindle until numbers are visible in the display.
- 6) Move the '**X**' axis to measure the **O.D.** of the spindle lip, zero the indicator, and take note of the dimension given for '**X**'.
- 7) Move the '**Z**' axis to measure the top face of the spindle, zero the indicator, and take note of the dimension given for '**Z**'.
- 8) The dimensions given for '**X**' and '**Z**' should match the values printed on the spindle within .0002 plus or minus. If they do not match, recalibration is necessary

SECTION II

Electronics

When the unit is first placed in service, it is important to check the bearing reference. This is carried out following the reference start-up in the measuring mode for measuring the calibration edges.

Reference correction is possible in the set menu. The main menu is reached using the procedure described (depress Set about 3 seconds immediately after ESC).

Select the Toolset reference in the main menu (depress number 1) which brings up the reference menu.

This procedure is described in the reference menu.

After the main switch is turned on, the display shows a prompt to run over the given reference marks in the minus direction, which are always in the middle of the scale. The display then switches into the absolute measuring mode.

When use is made of an adapter (reduction, for example), it is possible to select (depress Set + TOOL key) direct calculation in the display (calculation is pre-set into the set-up menu in accordance with an adapter we can supply).

The Hold function causes a hold on a given measured value (Hold + X/2), the counter being released with Hold + X/2 or Hold+Hold.

In the set-up menu, a selection is to be made between label software and measurement log software, the measurement log software setting also printing out a heading (Set+Print), Measurement log printers and label printers are part of our line accessories.

Toolset test log:	Tool:
Date:	Adapter : Base
Operator:	X - abs/red
Part No:	Z - abs/len
Program:	
Machine:	

Label printing of the measured values is possible via Hold/Print function (only measured values held can be printed out).

For safety reasons, the hold function is retained following the print-out (another print-out may be wanted) and must be released in the case of a new tool.

Label printing:

TOOL AD ISO40 (given selection is included in the print-out)

X abs red

Z abs len

Conversion functions:

Absolute/incremental (inc key is to be zeroed in each position)

Radius/diameter (only X axis)

mm/inch

A new reference start-up is always necessary if the power is shut off. The unit of measurement selected last is retained. Switching off to save power is out of proportion with that need to switch the system on again.

Fault solutions

- 1) Angle fault (parallel to the z-axis spindle)
Repair: *put the measuring bar into the spindle*
Unlock the z-guide rail, align it and fix it
- 2) Measuring fault in \emptyset
Repair: *Control if point one is right*
Adjust on the reference edge
- 3) Measuring fault in z-height
Repair: *Control if point one is right*
Adjust on the reference edge

Operating Instructions

Machine Projector MP 1000

1) **Control**

- a) Unpack the projector and accessories thoroughly and clean the glass parts from possible impurity with a soft cloth or sponge.
- b) In the case of transmitted light with condenser, you should proceed in the same way.

2) **Setting into operation**

- a) The projector should be clamped thoroughly into the holders specialised for this purpose.
- b) The transmitted light should be fitted at the holder destined by the customer and connected into the A.C. power supply of 6 V 50 VA respectively connected with the transformer supplied with the equipment.
- c) The transmitted light should be switched on and it should be controlled if illumination level and focus is on the right level. Illumination level should be corrected if it is needed. Release the internal hexagon head cap screw (1) and lift or let down the condenser until an optimum level of illumination is reached. If the light beam does not meet with the middle of the shaft diameter, release the internal hexagon head cap screw (2) and remove forward and back the light holder or turn it into the direction in which you require the light.

3) **Projector**

Check the concentricity of the test disc to the fixed reticule. If it does not correspond due to the transport, you should correct it.

Remove the 4 setscrews at the casing box. If you turn the setscrews parallel lying at the back (internal hexagon head cap screw 1,5), the fixed reticule can be adjusted at the X- and Y- axis. After this action, you have to place back the 4 setscrews at the casing box.

4) **Maintenance and changing the lights**

The projector and light do not need any maintenance beside cleaning the external optic parts occasionally with a soft cloth and some spirit or glass cleaner.

5) **Changing the lights**

Release the screw no (2) and pull out the light holder and remove the old light. Place the new light into the base and set it vertically without touching it with bare fingers. Screw in the base again and adjust it if needed as described above.

Lights 6 V 20 W 64250 Osram or 7388 Philips