SUPPORT DE MESURE POUR COMPARATEURS

PRÜFANLAGE FÜR MESSUHREN

DIAL GAUGE TESTING STAND

M3

MODE D'EMPLOI

BEDIENUNGSANLEITUNG

OPERATING INSTRUCTIONS



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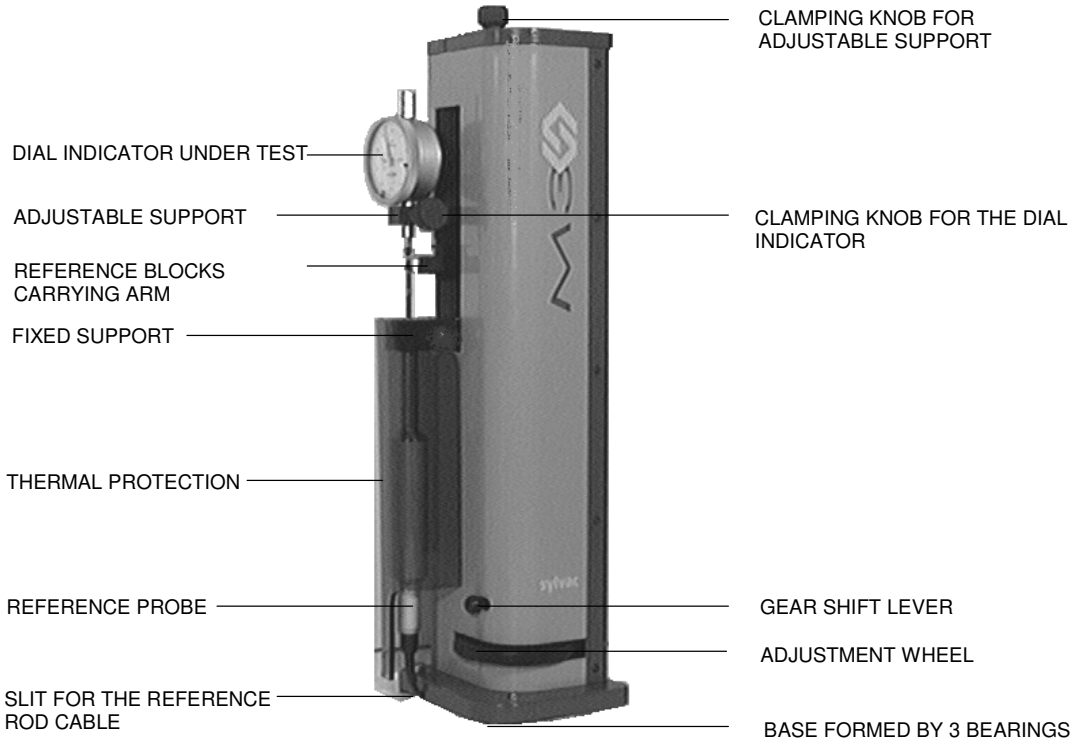
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1. DESCRIPTION



From experience, we built this support following ABBE's principle. By the fact, we minimize the alignment error.

A 0.1mm parallelism error on the 50mm range will only give 0.1µm error !

2. INSTALLATION

Place the instrument on a firm table, avoid any vibrations .

2.1 ATTACHING THE REFERENCE PROBE

Remove the thermal protection by pulling it upwards at an angle of 45°. Tighten the reference rod in the ∅ 8mm socket of the fixed support. Make a loop with the cable and insert it in the slit of the base. If necessary, stick some tape over the cable so that it stays in place. Replace the thermal protection.

2.2 ATTACHING THE DIAL GAUGE TO BE VERIFIED

Hold the mobile support with your left hand and undo the tightening lever. Move the support upwards and tighten the lever up to the stop (see 1. DESCRIPTION). Install the dial gauge in the Ø 8mm socket by using the knurled knob.

3. ADJUSTMENT WHEEL

3.1 COARSE ADJUSTMENTS

Move the gear shift lever to the right to get the high displacement speed , it is good enough for adjustments made on dial gauges with 0.01mm resolution.

3.2 FINE ADJUSTMENTS

Move the gear shift lever to the left to get the low displacement speed. The wheel will now make the approach easier. It can be spun for a quicker movement.

3.3 DIRECTION OF ROTATION

Seen from above, the clockwise rotation of the wheel causes the dial gauge’s spindle to move inwards (positive counting direction). Conversely, an anti-clockwise rotation causes the spindle to move outwards (negative direction).

4. SECURITY MECHANISM

Because of the great gear reduction, a large force can be developed if the mechanism gets blocked.

A security by friction protects the instrument of any damage but the gauge block could be damaged (dial gauge at the end of the range). In this case, better verify the gauge block !

5. DIAL GAUGES WITH ∅ 3/8 INCH ATTACHMENT STEM

Lightly undo the tightening nut and replace the ∅ 8mm socket with the ∅ 3/8 socket that is supplied as a standard accessory.

6. VERIFYING A DIAL GAUGE

Unlock the handle by holding the mobile support with your left hand, and moving it slowly until it touches the reference block.

Lock the lever at the stop and make sure, using the coarse adjustment dial, that the total movement of the comparator can be made and check also that the reference rod doesn't exceed its own limits. If needed, correct the position of the mobile support.

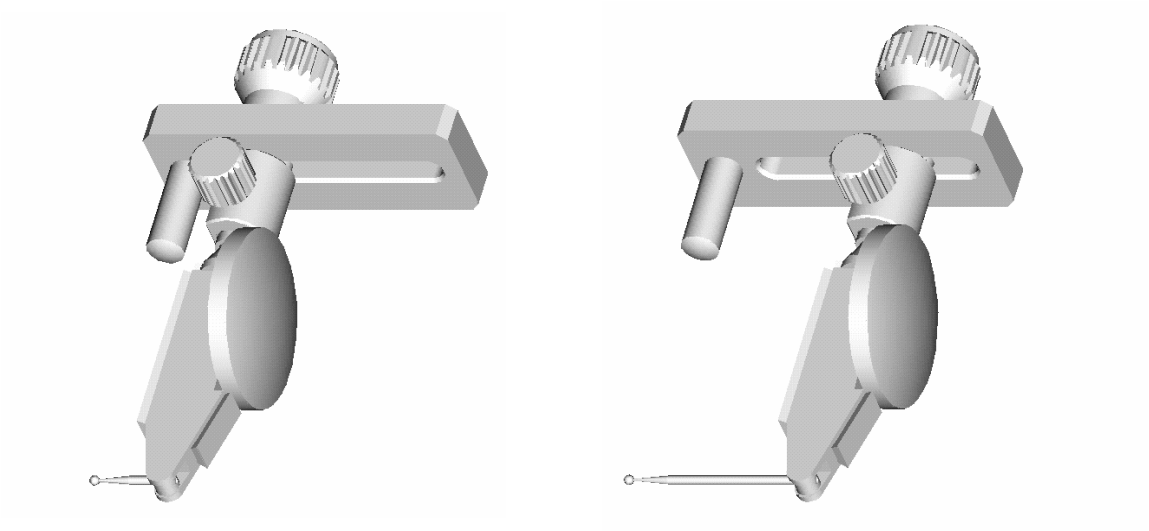
Please consult the program **SYCOPRO for WINDOWS FROM SYLVAC,** this program allows, during its configuration, the choice between the following verification standards: DIN 878/ DIN 879/ DIN 2270/ NFE-11-050/ ISO/DIS 463/ UNI 4180-70 and others.

VERIFICATION RULES : Approach and fix the position of the comparator's needle by turning the dial continuously in the same direction. It is possible to approach the value by using the coarse adjustment dial and then to lock it before finishing the adjustment with the fine adjustment dial. On the other hand, it is also possible to spin the fine adjustment dial, in order to get an approximate value, and to then do the final adjustments.

If a value has been accidentally overstepped, then move back quickly and redo the approach in the normal measuring direction.

7. ACCESSORY FOR LEVER INDICATORS

The accessory, supplied with every stand, can be used to verify indicators with every lever's length.



7.1 PREPARING THE REFERENCE BLOCKS

In order to verify this type of indicator in both directions, one must construct a fork with the three reference blocks.

Remove the reference blocks, clean them and construct a fork. Replace the blocks under the plastic blade, make sure they sit well on the block carrying arm.

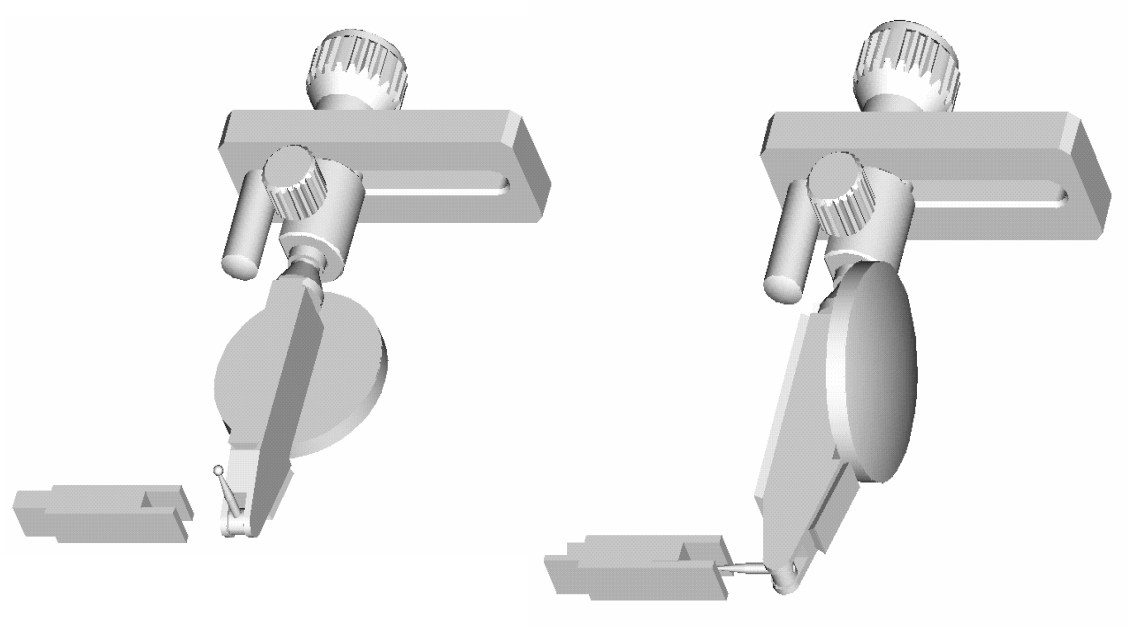
7.2 INSTALLING THE ACCESSORY

In order to correctly adjust the relative position of the indicator and the referencing ball in the measuring fork, it is best to position the M3 support horizontally.

Engage the indicator's dove's tail into the support and tighten lightly. Insert the pin into the mechanism. Place the lever perpendicular to the indicator body and position the reference ball in the centre of the fork formed by the reference blocks, by moving the mobile support or the block carring arm by means of the wheel.

The reference ball is introduced by rotation of the support in the Ø 8mm socket.

Verify that the reference ball is well centred on the measuring axis, and correct if necessary. The ball must keep in contact with the reference block throughout its travel without fouling.



The verification can now be made with the program **SYCOPRO for WINDOWS FROM SYLVAC,** which constructs a complete plotting in both directions.

7.3 STANDARD PROCEDURE

Once the device has been adjusted, and if you wish to verify a different indicator, proceed as follows:

Undo the indicator locking nut.

Rotate the mechanism 90°, in order to extract the r eference ball from the measuring fork.

Remove the indicator

Inspect the position of the support, and fix it at the same position on the dove's tail of the next indicator to be verified.

Engage the support in the mechanism.

Rotate the mechanism to bring the reference ball to the centre of the measuring fork

Tighten the locking nut.

8. MAINTENANCE

The M3 apparatus is maintenance-free. It has been lubricated for life and its parts are treated against corrosion.

8.1 MAINTAINING THE REFERENCE BLOCKS

If the mechanism is to be left unused for a long period of time, we recommend that you extract the reference blocks. Clean them and grease them with vaseline.

REMARK: If the reference blocks are lost or damaged, re-order them from your usual SYLVAC agent.

ORDER CODES:

M3	Dial gauge testing stand	909.1300
SYCOPRO-W	Test software 3,5''	981.7122
KIT M3	M3 / D80 / P25 / SYCOPRO-W / PC cable	909.1301