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ENTERPRISE VIBROBIT LLC

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EQUIPMENT "VIBROBIT 100"

STAND SP10

Operations and Maintenance Manual

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Rostov-on-Don
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SPE VIBROBIT LLC

Address: 344092, Russia, Rostov-On-Don, Kapustina St, 8, building A (PO Box №53)

Tel./Fax: +7 863 218-24-75, +7 863 218-24-78

E-mail: info@vibrobit.ru

http: //www.vibrobit.ru

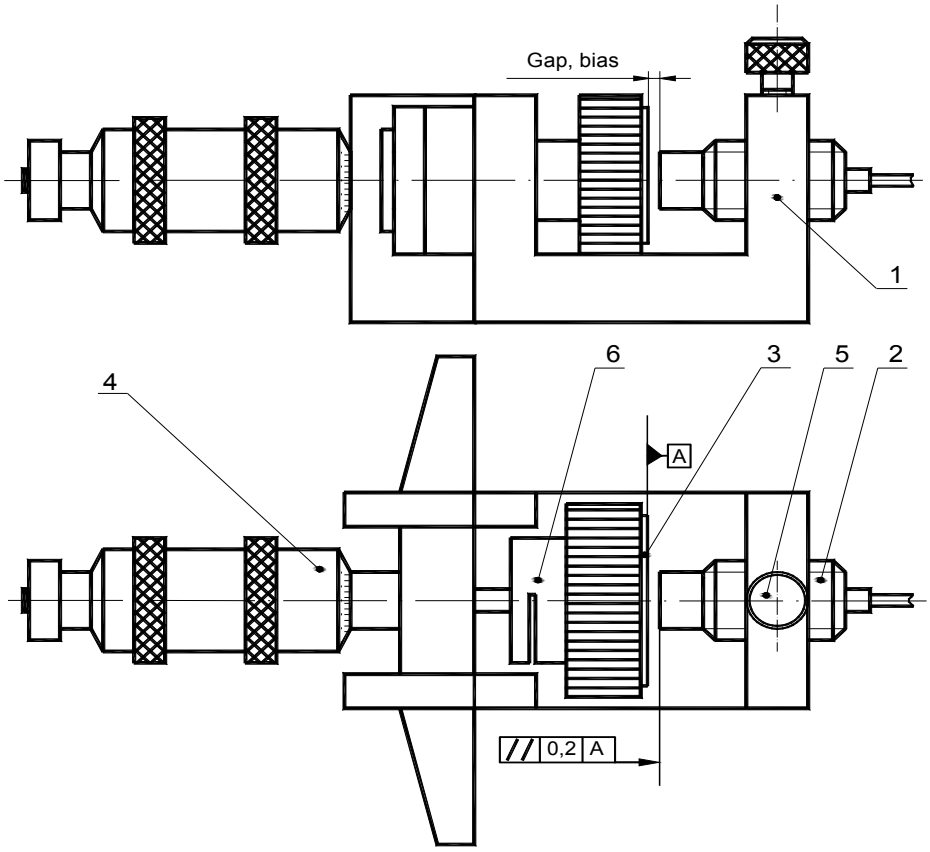
The enterprise “VIBROBIT” reserves the right to modify parts and accessories without loss of product performance.

The Operations and Maintenance Manual (OMM) is intended for familiarization of users (consumers) with purpose, principle of operation, specifications, design, rules of operation and calibration of the stand SP10.

The user must know the rules of electrical appliances, have experience with radio measuring equipment, as well as know the purpose and operation of the equipment "Vibrobit 100".

1 Purpose of equipment

The stand SP10 is intended for calibration and testing of the eddy current sensors DVT10, DVT20, DVT21, DVT30 in conjunction with the transducers.



1 – Base; 2 – Eddy current sensor; 3 – Test specimen; 4 – Micrometer depth gauge GM100;
5 – Retainer screw; 6 – Nozzle.

Figure1 – Appearance of Stand SP10

2 Main technical characteristics

Main technical characteristics of the equipment are given in Tables 1.

Table 1 – Main technical characteristics

The parameter name	Normal values
Measuring range of displacement, mm	from 0 to 25 inclusive
Basic error of displacement setting, mm	± 0.01
Tolerance of parallelism between the reference sample and the sensor, mm	0,2
Overall dimensions, mm	150x100x65
Mass, kg, not exceeding	0.5

3 Design and Principle of Operation

The stand consists of a base, a GM100 micrometer depth gauge, a nozzle with a control sample and a locking screw.

The offset of the control surface of the sample relative to the sensor is created by rotating the micrometer depth gauge and the offset parameter is counted on its scale.

When rotating a micrometer depth gauge with a nozzle, the control surface of the sample should not have axial and radial runout. The control of the latter is carried out visually.

The calibration of the stand consists in the calibration of the micrometer depth gauge, as a linear meter.

When calibrating the sensor, a sample made of the material of the test object should be used.

4 Storage and Transportation

The stand in the package withstands transportation to any distance by road and rail (in closed vehicles), water transport (in the holds of ships), air transport (in sealed compartments).

Transportation conditions - J according to GOST 25804.4–83.

The packaging stand can withstand the following transport factors:

- temperatures from minus 50 ° C to plus 50 ° C;

- relative humidity 95% at 35 ° C;

- vibration (acting along three mutually perpendicular axes of the container) during transportation by rail, by road and by plane in the frequency range (10 - 55) Hz with an amplitude of vibration displacement of 0.35 mm and vibration acceleration of 5g;

- strokes with a peak shock acceleration value of 10g, a shock pulse duration of 10 ms, the number of strokes (1000 ± 10) in the direction indicated on the container.

Storage of the stand regarding the impact of climatic environmental factors must comply with conditions 3 (J3) according to GOST 15150–69. Shelf life no more than 24 months from the date of manufacture.

Long-term storage of the stand is carried out in packaging, in heated rooms with conditions 1 (L) according to GOST 15150–69.