5.3.14. MODIFIED CALIBRATION BLOCK OF V-2 TYPE

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Modified calibration block of V-2 type with weight of 230 gram is developed. It has increased thickness (15.1 mm instead of 12.5 mm) which makes it possible to use it for validation of characteristics of ultrasonic (US) probes and flaw detectors within the frequency range of 1.8 – 10 MHz.

There additional digital distance scales in millimeters provided on the block, while angle scales are performed with discreteness of 1°. This allows validation of the entry angle of ultrasonic beam and x-values with resolution of 0.5° and 0.5 mm, as well as complete adjustment of the coordinate block of flaw detectors without additional attachments.

Besides basic side cylindrical Ø5 mm reflector, block contains additional side cylindrical Ø2 mm reflector located at the depth of 3 mm. Availability of such a reflector makes it possible to evaluate quickly the dead zone of testing.

Availability of DGS-diagrams for some types of US probes of mass production allows sensitivity adjustment during testing of welded joints with thickness from 8 to 40 mm to be carried out without other calibration blocks.

Block is accompanied by the methodology of verification and adjustment of US flaw detectors using this block and taking into account various variable factors (surface roughness, its curvature, type of coupling liquid, thickness of joint).