

MULTIFUNCTIONAL HARDWARE AND SOFTWARE COMPLEX FOR DIAGNOSING THE METAL SAMPLE HEATING AND COOLING PROCESSES



Areas of Application

The complex can be used in engineering and metallurgical industries, at labs and shops, specialized research institutes and universities for testing the cooling properties of different steel-tempering liquids; for development of more effective liquids in accordance with international standards; for contactless acoustic identification of cooling rate and mode in production environment

Specification

PC: OS: Windows XP, 512MB RAM, processor type Intel Pentium 4 CPU 2.66 GHz.

Dimensions:

record and control unit, mm	215 × 235 × 235
furnace, mm	348 × 162 × 35243

Voltage, V 220 ± 22

Furnace capacity, kW 2

Advantages

Identification of process conditions for obtaining fine-grained structure and optimum depth of metal surface hardening, which increases 1.5–3 times the life of products; elimination of production defects: cracks, deformation, “soft spots” on the surface; the possibility of replacing high-alloy steels by cheaper ones; reduces price of new quenching medium by 50% as compared with imported analogs; improves the environment conditions and simplifies the utilization of waste materials; the possibility of acoustic diagnostics for hardening

Stage of Development.

Suggestions for Commercialization

IRL6, TRL6

Manufactured and delivered, upon request

IPR Protection

IPR2

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