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SIGNIFICANCE OF CERTIFICATION OF TESTING INSTRUMENTS IN QUALITY PRODUCT MANUFACTURING

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Abstract:
This statement emphasizes the significance of conducting tests in the manufacturing process to ensure the production of high-quality products within enterprises. The need for testing arises as it forms the foundation for the core function of producing and utilizing equipment during the manufacturing process. Testing is crucial during production, in establishing the inventory of equipment, in the contemporary creation of testing equipment, and in the development of specific and governmental programs. The certification of testing equipment holds paramount importance, with its primary objectives being the precise documentation of equipment specifications, their compatibility with documented references, and the determination of their suitability for utilization.

Keywords: Product, quality, indicators, importance, tests, production.

To create a technical device for the certification of testing conditions of the testing equipment. Classification is necessary because it serves as the basis for production and use when creating and using the testing equipment, during production and in the nomenclature list of the testing equipment, in the production of modern testing equipment, and in the development of purposeful and state programs. The certification of the testing equipment is considered crucial in determining the main tasks of the testing equipment [1]. The main purpose of the certification of testing equipment is to identify the precise specifications of the equipment, its compatibility with documented specifications, and to specify the suitability of the equipment for use.

Understanding the technical specifications that specify the testing requirements within the specified range with clarity and accuracy, and defining the possibilities of using and strengthening within the specified period are crucial. For example, in addition to the descriptive specifications, technical specifications that clearly indicate the ability to use the equipment safely and effectively in conducting experiments beyond the descriptive specifications are part of the complex of technical specifications unique to the equipment [2]. Determining the compatibility of the testing equipment's precise specifications with international standards is essential in identifying the suitability of the equipment for use. The certification types of testing equipment must comply with international standards requirements, based on the fact that all types of testing equipment, whether general industrial, agricultural, or specialized, should strictly adhere to the requirements of the initial, periodic, and non-periodic types of certification. Initial certification includes newly manufactured equipment, while periodic certification includes equipment initially prepared with experienced samples, modernized testing equipment, specially designed testing equipment, and imported testing equipment [3].

The initial certification of testing equipment is essential to conduct comprehensive checks on all sides. For example, the equipment's specific specifications are examined for precision and completeness, and the compatibility of the equipment with the requirements and modes within the specified range is determined, as well as the possibilities of using and reinforcing them within the specified period. The technical specifications that are essential to determining the compatibility of the equipment's specific specifications with international standards must be derived from international and national documents. In determining the reliability of the equipment, the technical specifications that describe the conditions of testing specific products and the possibilities of using and reinforcing them during the utilization process are essential [4].

The methods of organizing the certification of testing equipment after the initial certification are seen as a complex process of obtaining objective information about the precise specifications of the equipment under test. This process includes dividing the organizational and methodological stages, such as defining the first stage task, preparing and organizing the certification, developing the rules and methodologies

for certification, conducting the certification, and summarizing the results and making decisions. Let's go through each stage and outline the tasks that need to be accomplished.

First stage - defining the task: To realize this stage, it is necessary to clearly define the purpose of certification, its tasks, and the specific aspects of its implementation; this point depends on the type of certification in general and its consequences, peculiarities, and tasks will be specific to the type of certification. It is important to identify the certification object and the conditions for its implementation, study the requirements and tasks related to specific product types specified in the specifications, and learn from the regulatory documents on testing methods and norms [5].

Second stage - preparation and organization of certification: When preparing for certification, attention should be paid to the readiness of certification personnel, appropriate documentation, measurement tools, and the readiness of the testing facility and auxiliary technical tools. The staff conducting the certification must have the necessary knowledge of various sciences and be prepared for various activities. It is necessary to study what is necessary for the equipment to meet the technical requirements and norms in the process of certification. Analyzing and analyzing the requirements for the report on certification and other necessary requirements for the preparation of the certification process [6].

Preparation of normative-technical documents: All documents must pass a metrological examination. The metrological examination of the standard document is carried out on the basis of the requirements for parameters based on the choice of parameters specified in the standard document and the establishment of the range of meanings of measurement methods and tools, as well as the provision of necessary documents and programs, methodics for certification and testing, standards of methodologies and documents. necessary documents.

Third stage - conducting certification: It is essential to ensure that the certification is carried out under the requirements of the certification, the technical specifications are determined, and the parameters of the testing standards and methods within the specified range are determined and confirmed in the established period. It is also important to check the conditions of registration and measurement parameters,

calculate the results of certification, evaluate and analyze the results, and prepare reports on the results of certification. In the process of certification, it is necessary to use semi-automatic or automatic measuring instruments to automatically register indicators and parameters that clearly indicate in the documents the measured values and performance indicators of the equipment [7].

Fourth stage - summarizing and analyzing certification results: The main task at this stage is to analyze the results obtained during the certification process and summarize them. Based on the results of certification, conclusions and proposals should be drawn up to improve the quality and metrological work, as well as recommendations for eliminating identified shortcomings [8].

In conclusion, each stage should be considered separately, and the tasks to be accomplished in each stage should be formulated. The execution of each stage is crucial to the success of the certification process and to ensuring the quality and metrological reliability of the testing equipment.

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