A word from our Editor-in-Chief

NONCONVENTIONAL TECHNOLOGIES - A GREAT FUTURE

Each technological method need to complete a technological process that represents an independent component which must, however, meet the precise requirements impose to the process equal system. The systemic approach tends to become a general method of thinking, pertaining to all sciences, yet having a particularly efficient impact on technological sciences. The essential character of the systemic approach consists in its preference for the whole over the component parts, on the one hand, and in the special attention it pays to the study of the constantly changing possible connections between the components of the system, on the other hand. Although the concept of system may currently refer to a single technological entity, the technological process tends to be regarded as a whole. In this way, each technological method is subordinated to the technological process and meets certain generalized requirements, without disrupting the functioning of the other methods. This approach regards the technology of dimensional processing through electrical erosion as a progressive one, which will result in identifying the possibilities of ensuring its systemic character. The concept of technological system originates in the more general concept of system, being defined as a structured group of interconnected means of production, whose functions are subordinated to the main purpose and whose components must be adjusted to the required general conditions. The integration of the electrical erosion processing into technological lines or flexible manufacturing systems has come true. However, this has brought about the development of new concepts regarding the methods of applying it, the ability to adjust automatically to certain evolving tasks being indispensable. This trend that has already been initiated by electrical erosion processing refers to bringing together all the improvements made in the many fields of human knowledge that contribute to processing. The main limitation of the method refers to the low productivity of the processing, and this has made it impossible to compare it with most of the conventional processing methods. It is obvious that this adjustment involves the presence of the processing computer, all the more necessary to electrical erosion processing as this method "excels" in the broad random values of the adjusting parameters. These facts have brought about the improvement of self-adaptive operations of the technological systems of electrical erosion processing and the preference for the larger use of systems able to do away with the operator's intervention almost completely, even when the operations to be performed are extremely diverse, from technological design, design of the manufacturing preparation (electrode-tools, electrode-tool storehouses, devices for fastening the processed object, etc.) to interphasic control and final operations. When the electrical erosion processing started to be applied in industry, it had a great number of advantages that brought about its continuous development; however, certain limitations resulted in its "technological isolation". The more and more rapid development of micro and nanotechniques will cause the processing method through electrical erosion to face new requirements, new challenges that can be relatively easily met with the help of this processing method. Electrical erosion will be the method that will around which other processing methods will revolve.

FUTURE SOUNDS GOOD !

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