INTRODUCTION

Eight years ago, a symposium on gaskets was presented by members of ASTM Committee F-3 under the auspices of SAE at its Mid-Year Meeting in Detroit.

Its purpose was to focus attention on gasket technology and make available the results of research and standardization development in this field. The papers were enthusiastically received and generated considerable discussion in a number of areas. Attendance was most gratifying and justified the efforts of the participants.

Most important, the symposium served to demonstrate the state of the art. Papers dealt with various subjects in the field of gaskets. They emphasized the scientific and engineering progress which had occurred in such areas as material development, testing, performance and methods of classification.

Over the intervening years, there has been much additional work in the development of new concepts, new materials and new methods of evaluating the functioning of gaskets. There has been a gradual emergence of the recognition of functional test methods as an index of performance. This has replaced reliance upon composition and physical properties as the primary considerations. The net effects of these advances have been greater confidence in the selection of gasket materials for specific applications, improved flange design and, finally, more reliable service. The economic value of these items cannot be underestimated, particularly at the inflated levels of present costs.

With this in mind, the present symposium was organized as a means of presenting updated information in a number of areas on gasket technology. Under the leadership of ASTM Committee F-3 and with the cooperation of SAE, progress continues to be made in the standardization of gaskets and gasket materials. The results are manifest in an expanded classification system and methods of test. Along with this, a constantly increasing understanding of the function of gaskets is helping to establish them more firmly as engineered components.

The papers in this symposium encompass a broad spectrum of gasket technology. They are indicative of the numerous areas in which expertise has developed. Of particular interest are the presentations dealing with newer types of materials, especially in view of their increasing importance. It is hoped that these papers will help to advance the knowledge in this field by providing useful information and by stimulating creative thought as a basis for future new development.

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Organizer
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