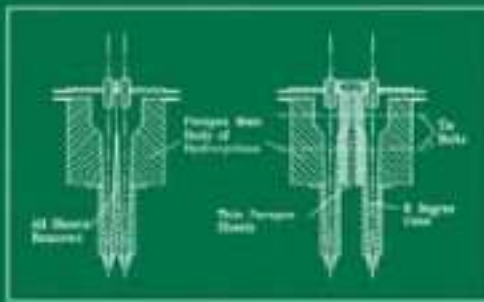


FLUID MECHANICS AND ITS APPLICATIONS

L. Svarovsky
M. T. Thew
editors

Hydrocyclones

Analysis and Applications



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Hydrocyclones

Analysis and Applications

edited by L. Svarovsky and M. T. Thew

This volume contains papers presented at the 4th International Conference on Hydrocyclones, held at Southampton, UK, on 23 – 25 September, 1992.

Cyclonic devices as a means of separating different fluid phases is truly coming of age. Considerable fundamental research has been carried out leading to better design information which, together with advances in materials technology and broader fields of application, has resulted in much wider market acceptance.

The conference provided a unique international forum for operators, suppliers, manufacturers and designers of equipment for the mineral processing, petroleum and process industries to discuss the theory, design and application of cyclonic devices in industry.

The papers were divided into several main sections: fundamentals and new areas; design and operation; practical applications; and development.

The volume is perhaps the most up-to-date review of current developments in the technology.

FOREWORD

It is with great pleasure and satisfaction that we introduce this volume which comprises the papers accepted for the 4th International Conference on Hydrocyclones held in Southampton from 23rd to 25th September 1992. As the name implies, this is the fourth Conference in the series, with the previous ones held in Cambridge in 1980, Bath in 1984 and Oxford in 1987.

The papers cover a wide span of activities, from fundamental research to advances in industrial practice and, as in the earlier volumes, make a significant contribution of lasting value to the technical literature on hydrocyclones.

Hydrocyclones continue to widen their appeal to engineers; besides their traditional role in mineral processing they now attract a lot of attention in chemical engineering, the oil and gas industry, power generation, the food industry, textiles, metal working, waste water treatment, pharmaceuticals, biotechnology and other industries. The reason for this continuously increasing attention is, as David Parkinson (General Manager of Conoco (UK)) said recently, that "...a hydrocyclone is an engineering dream, a machine with no moving parts." Yet as this Volume clearly shows, the hydrocyclone can do so many things and do them well, whether the application is in solid-liquid, liquid-liquid or liquid-gas separation.

It remains for us to thank the members of the Technical Advisory Committee and the referees for their time and efforts and, of course the sponsors (BHR Group Limited) for their support. In particular, our thanks should go to Carl Welch and Kit Stones in the BHR Group Conference office who have shown a great deal of patience and limitless energy in collecting the papers for this volume and organising this Conference. We are also grateful to the authors who so gallantly faced the criticisms of the referees and contributed to the success of both the Conference and this publication.

So we commend this volume to you and hope to see everyone again, at the next hydrocyclone meeting.

Lado Svarovsky

Martin Thew

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