

John Crane Seal Selection Guide

Principles and Design of Mechanical Face Seals John Wiley & Sons

THE DEFINITIVE GUIDE TO SELECTING, OPERATING, AND MAINTAINING POWER PLANT EQUIPMENT Power Plant Equipment Operation and Maintenance Guide provides detailed coverage of different types of power plants such as modern co-generation, combined-cycle, and integrated gasification combined cycle (IGCC) plants. The book describes the design, selection, operation, maintenance, and economics of all these power plants. The best available power enhancement options are discussed, including duct burners, evaporative cooling, inlet-air chilling, absorption chilling, steam and water injection, and peak firing. This in-depth resource addresses the sizing, selection, calculations, operation, diagnostic testing, troubleshooting, maintenance, and refurbishment of all power plant equipment, including steam turbines, steam generators, boilers, condensers, heat exchangers, gas turbines, compressors, pumps, advanced sealing mechanisms, magnetic bearings, and advanced generators.

Coverage includes: Methods for enhancing the reliability and maintainability of all power plants

Economic analysis of modern co-generation and combined-cycle plants

Selection of the best emission-reduction method for power plants

Preventive and predictive maintenance required for power plants

Gas turbine applications in power plants, protective systems, and tests

An innovative resource for materials properties, their evaluation, and industrial

applications The Handbook of Materials Selection provides information and insight that

can be employed in any discipline or industry to exploit the full range of materials in use

today-metals, plastics, ceramics, and composites. This comprehensive organization of

the materials selection process includes analytical approaches to materials selection

and extensive information about materials available in the marketplace, sources of

properties data, procurement and data management, properties testing procedures and

equipment, analysis of failure modes, manufacturing processes and assembly

techniques, and applications. Throughout the handbook, an international roster of

contributors with a broad range of experience conveys practical knowledge about

materials and illustrates in detail how they are used in a wide variety of industries. With

more than 100 photographs of equipment and applications, as well as hundreds of

graphs, charts, and tables, the Handbook of Materials Selection is a valuable reference

for practicing engineers and designers, procurement and data managers, as well as

teachers and students.

The Jan. 1956 issue includes Fluid power engineering index, 1931-55.

A Complete overview of theory, selection, design, operation, and maintenance This text offers a

thorough overview of the operating characteristics, efficiencies, design features,

troubleshooting, and maintenance of dynamic and positive displacement process

gas compressors. The author examines a wide spectrum of compressors used in heavy process

industries, with an emphasis on improving reliability and avoiding failure. Readers learn both

the theory underlying compressors as well as the myriad day-to-day practical issues and

challenges that chemical engineers and plant operation personnel must address. The text

features: Latest design and manufacturing details of dynamic and positive displacement

process gas compressors Examination of the full range of machines available for the heavy

process industries Thorough presentation of the arrangements, material composition, and basic

laws governing the design of all important process gas compressors Guidance on selecting

optimum compressor configurations, controls, components, and auxiliaries to maximize

reliability Monitoring and performance analysis for optimal machinery condition Systematic

methods to avoid failure through the application of field-tested reliability enhancement concepts

Fluid instability and externally pressurized bearings Reliability-driven asset management strategies for compressors Upstream separator and filter issues The text's structure is carefully designed to build knowledge and skills by starting with key principles and then moving to more advanced material. Hundreds of photos depicting various types of compressors, components, and processes are provided throughout. Compressors often represent a multi-million dollar investment for such applications as petrochemical processing and refining, refrigeration, pipeline transport, and turbochargers and superchargers for internal combustion engines. This text enables the broad range of engineers and plant managers who work with these compressors to make the most of the investment by leading them to the best decisions for selecting, operating, upgrading, maintaining, and troubleshooting. This fully-illustrated guide offers a quick and easy visual reference for installing electrical systems. Whether you're installing a new system or repairing an old one, you'll appreciate the simple explanations written by a code expert, and the detailed, intricately-drawn and labeled diagrams. A real time-saver when it comes to deciphering the current NEC. Examines the fundamentals and practice of both the design and operation of face seals, ranging from washing machines to rocket engine turbopumps. Topics include materials, tribology, heat transfer and solid mechanics. A variety of simple and complex models are proposed and evaluated and specific problems such as heat checking, blistering and instability are considered. Offers 64 tables and 364 references plus useful recommendations regarding the future of seal design.

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