

1. Record Nr.	UNINA9910780015503321
Autore	Mobley R. Keith <1943->
Titolo	Vibration fundamentals [[electronic resource] /] / by R. Keith Mobley
Pubbl/distr/stampa	Boston, : Butterwoth-Heinemann, c1999
ISBN	978-0-0805-8161-6 1-281-71252-3 1-281-05193-4 9786611051938 0-08-048161-2 9780080581616 0-08-058161-7
Descrizione fisica	1 online resource (302 p.)
Collana	Plant engineering maintenance series
Disciplina	621.8/16
Soggetti	Plant maintenance Vibration Machinery - Vibration
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Front cover; Title Page; Copyright Page; Table of Contents; Part I THEORY: INTRODUCTION TO VIBRATION ANALYSIS; Chapter 1 INTRODUCTION; Chapter 2 VIBRATION ANALYSIS APPLICATIONS; Chapter 3 VIBRATION ANALYSIS OVERVIEW; Chapter 4 VIBRATION SOURCES; Chapter 5 VIBRATION THEORY; Chapter 6 MACHINE DYNAMICS; Chapter 7 VIBRATION DATA TYPES AND FORMATS; Chapter 8 DATA ACQUISITION; Chapter 9 ANALYSIS TECHNIQUES; Part II FREQUENCY-DOMAIN VIBRATION ANALYSIS; Chapter 10 OVERVIEW; Chapter 11 MACHINE-TRAIN MONITORING PARAMETERS; Chapter 12 DATABASE DEVELOPMENT; Chapter 13 VIBRATION DATA ACQUISITION Chapter 14 TRENDING ANALYSISChapter 15 FAILURE-MODE ANALYSIS; Chapter 16 SIGNATURE ANALYSIS; Chapter 17 ROOT-CAUSE ANALYSIS; Part III RESONANCE AND CRITICAL SPEED ANALYSIS; Chapter 18 INTRODUCTION; Chapter 19 TYPES OF RESONANCE; Chapter 20 EXAMPLES OF RESONANCE; Chapter 21 TESTING FOR RESONANCE; Chapter 22 MODE SHAPE; Part IV REAL-TIME ANALYSIS; Chapter 23

OVERVIEW; Chapter 24 APPLICATIONS; Chapter 25 DATA ACQUISITION; Chapter 26 ANALYSIS SETUP; Chapter 27 TRANSIENT (WATERFALL) ANALYSIS; Chapter 28 SYNCHRONOUS TIME AVERAGING; Chapter 29 ZOOM ANALYSIS; Chapter 30 TORSIONAL ANALYSIS; GLOSSARY LIST OF ABBREVIATIONS INDEX

Sommario/riassunto

In a single useful volume, Vibration Fundamentals explains the basic theory, applications, and benefits of vibration analysis, which is the dominant predictive maintenance technique used with maintenance management programs. All mechanical equipment in motion generates a vibration profile, or signature, that reflects its operating condition. This is true regardless of speed or whether the mode of operation is rotation, reciprocation, or linear motion. There are several predictive maintenance techniques used to monitor and analyze critical machines, equipment, and systems in a typical pl