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Nota di contenuto	Front cover; Title page; Copyright; Preface; Table of contents; Symbols and Units; Chapter 1. Mineral Sampling; INTRODUCTION; STATISTICAL TERMINOLOGY; MINERAL PARTICLES DIFFERING IN SIZE-GY'S METHOD; MINERAL PARTICLES OF DIFFERENT DENSITY; INCREMENTAL SAMPLING; CONTINUOUS SAMPLING OF STREAMS; SAMPLING ORES OF PRECIOUS METALS; SAMPLING NOMOGRAPHS; PROBLEMS; REFERENCES; Chapter 2. Particle Size Estimation and Distributions; INTRODUCTION; METHODS OF SIZE ESTIMATION; PARTICLE SIZE DISTRIBUTION; COMBINING SIZE DISTRIBUTIONS; PROBLEMS; REFERENCES; Chapter 3. Size Reduction and Energy Requirement INTRODUCTION DESIGN OF SIZE REDUCTION PROCESSES; ENERGY FOR SIZE REDUCTION-WORK INDEX; ESTIMATION OF WORK INDEX FOR CRUSHERS AND GRINDING MILLS; PROBLEMS; REFERENCES; Chapter 4. Jaw Crusher; INTRODUCTION; DESIGN OF JAW CRUSHERS; JAW CRUSHER OPERATION; JAW CRUSHER CAPACITY; CRITICAL OPERATING SPEED; POWER CONSUMPTION; PROBLEMS; REFERENCES; Chapter 5. Gyratory and Cone Crusher; INTRODUCTION; DESIGN OF GYRATORY CRUSHERS; GYRATORY CRUSHER OPERATION; GYRATORY CRUSHER CIRCUIT DESIGN; CAPACITY; POWER CONSUMPTION; PROBLEMS; REFERENCES;

Chapter 6. Roll Crushers; INTRODUCTION; DESIGN OF ROLL CRUSHERS  
OPERATION OF ROLL CRUSHERS CAPACITY OF ROLL CRUSHERS; POWER  
CONSUMPTION OF ROLL CRUSHERS; HIGH PRESSURE GRINDING ROLLS  
(HPGR); OPERATION OF HPGR; CAPACITY OF HPGR; POWER  
CONSUMPTION OF HPGR; PROBLEMS; REFERENCES; Chapter 7. Tubular  
Ball Mills; INTRODUCTION; DESIGN OF TUBULAR MILLS; OPERATION OF  
TUBULAR BALL MILLS; ESTIMATION OF MILL CAPACITY; MILL POWER  
DRAW-MECHANICAL METHODS; PROBLEMS; REFERENCES; Chapter 8.  
Tubular Rod Mills; INTRODUCTION; DESIGN OF ROD MILLS; OPERATION  
OF ROD MILLS; ROD MILL CAPACITY; ROD MILL POWER DRAFT; MILL  
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POWER; CHOICE OF OPTIONS BETWEEN AG AND SAG MILLS; PROBLEMS;  
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INTRODUCTION; BASIS FOR MODELLING COMMINUTION SYSTEMS;  
MATHEMATICAL MODELS OF COMMINUTION PROCESSES; MODELLING  
CRUSHING AND GRINDING SYSTEMS; PROBLEMS; REFERENCES; Chapter  
11. Screening; INTRODUCTION; BASIC DESIGN FEATURES IN SCREENS;  
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INTRODUCTION; DESIGN FEATURES OF MECHANICAL CLASSIFIERS;  
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FEATURES OF CENTRIFUGAL CLASSIFIERS; OPERATION OF MECHANICAL  
CLASSIFIERS; CAPACITY OF MECHANICAL CLASSIFIERS; OPERATION OF  
CENTRIFUGAL CLASSIFIERS; HYDROCYCLONE MODELS; HYDROCYCLONE  
CAPACITY; HYDROCYCLONE CIRCUITS; PROBLEMS; REFERENCES;  
Chapter 13. Solid - Liquid Separation; INTRODUCTION; DESIGN  
FEATURES OF THICKENERS; THICKENER DESIGN-BATCH PROCESS  
THICKENER DESIGN-CONTINUOUS THICKENERS

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Sommario/riassunto

Mineral Processing Design and Operations is expected to be of use to the design engineers engaged in the design and operation of mineral processing plants and including those process engineers who are engaged in flow-sheets development. Provides an orthodox statistical approach that helps in the understanding of the designing of unit processes. The subject of mineral processing has been treated on the basis of unit processes that are subsequently developed and integrated to form a complete strategy for mineral beneficiation. Unit processes of crushing, grinding, solid-liquid separati

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