

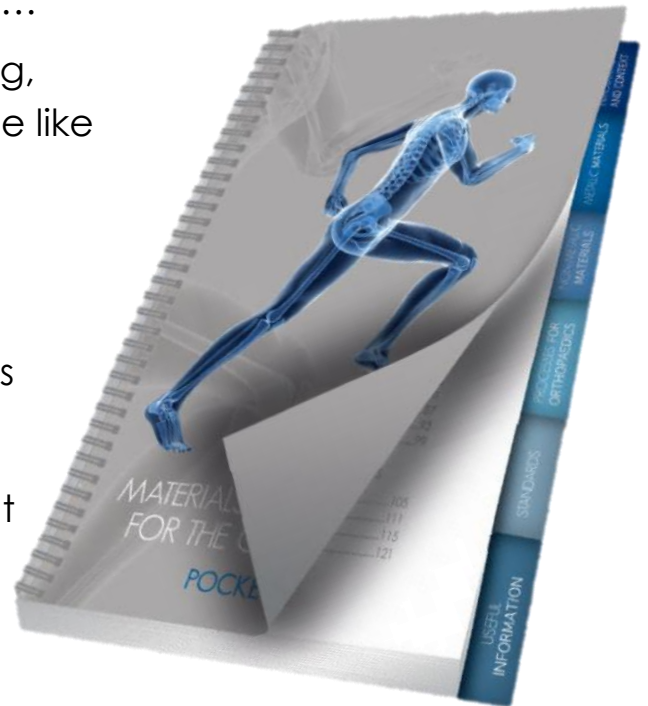
# MATERIALS AND PROCESSES FOR THE ORTHOPAEDICS POCKET BOOK

The "PocketBook" includes a wide array of subjects about:

- **Materials** such as metals, polymers, ceramics...
- **Processes** such as forging, foundry, machining, coating, controlling, testing and the like

This "PocketBook" is of interest to:

- designers, engineers and production at OEMs
- supply chain and administration executives
- sales professionals and general management
- orthopaedic surgeons and hospital services
- contract manufacturers



Hard copy PocketBook version: 210 pages, 110x170 mm format



For further information:

Please visit: [www.orthomaterials.com](http://www.orthomaterials.com) - Contact: [info@orthomaterials.com](mailto:info@orthomaterials.com)

# S U M M A R Y

## CHAPTER 1: INTRODUCTION AND CONTEXT

- Introduction “why such a PocketBook ?”
- An orthopaedic surgeon’s point of view
- Market mapping & contract manufacturing

## CHAPTER 2: METALLIC MATERIALS

- Introduction to metallic materials for orthopaedics
- Advanced metallurgical solutions
- Titanium from ore to bar material
- Forging titanium
- Distribution of specialty medical alloys
- Magnesium alloys
- Shape memory alloys
- Fine powder technologies

## CHAPTER 3: NON-METALLIC MATERIALS

- Ceramic materials
- Resorbable lactide based polymers
- PEEK
- UHMW-PE in Joint Reconstruction
- Textiles for implants
- Composite materials
- Polymers for instruments

## CHAPTER 4: PROCESSES FOR ORTHOPAEDICS

- Investment Casting – Lost Wax Process
- Forging and finishing
- Additive manufacturing
- Cannulated bar technology
- Machining in orthopaedics
- Swiss Turning processes
- Cutting tools: challenges in machining
- Deep grinding
- Mass finishing
- Thin coating technologies
- Osteoconductive coatings
- Injection molding of orthopaedic polymers
- Instrument manufacturing
- Tests and controls

## CHAPTER 5: STANDARDS

- ASTM standards
- Committee F04.11 on polymeric materials
- Committee F04.12 on metallurgical materials
- Committee F04.13 on ceramic materials

## CHAPTER 6: USEFUL INFORMATION

- Key words
- Contributors
- Disclaimer

## CONTRIBUTORS

