The Rubber Roller Group’s Technical Handbook for *Elastomeric Roll Covering*

**Table of Contents**

**Acknowledgements**

**History of the Rubber Roller Group**

**History of Covered Rolls**

**Chapter 1 Incoming Roll Inspection**

**Chapter 2 Rubber Types**

**Chapter 3 Polymer Selection Guide**

**Chapter 4 Core Construction and Design**

**Chapter 5 Extrusion Building Techniques for Rolls**

**Chapter 6 Roll Covers: How Thick?**

**Chapter 7 Ribbon Coating: A Commercial Process for Polyurethane Rolls**

**Chapter 8 Roll Ends**

**Chapter 9 Vulcanization**

**Chapter 10 Autoclave Curing**

**Chapter 11 The Bonding Process: Rubber to Core**

**Chapter 12 Bond Failure Analysis of Roll Coverings**

**Chapter 13 Finishing – Grinding and Polishing**

**Chapter 14 Dimensions, Tolerance and Industry Standard Specifications**

**Chapter 15 Inspection Devises for Measuring Rubber**

**Chapter 16 Crowning and Custom Tapering of Rolls**

**Chapter 17 Grooving of Rubber Rolls**

**Chapter 18 Roll Balancing**

**Chapter 19 Laser Engraving**

**Chapter 20 Engineered Idlers and Rolls**

**Chapter 21 Roll Deflection**

**Chapter 22 Maintenance of Rolls**

**Chapter 23 Introduction to Bearings**

**Chapter 24 Getting Rolls to Market**

**Chapter 25 Special Roll Features**

**Chapter 26 Functional Roll Coating**

**Chapter 27 Hard Anodizing**

**Chapter 28 Durometer Hardness Testing**

**Chapter 29 General Information**

 **Short List of Industry Roll Applications**

 **US Customary System Conversions**

 **Glossary**