

DAY 1

SECTION 1

Mechanical Behavior of Webs

Necessity of Web Tensioning

Load Cell, Dancer Rollers, or Both

Open-Loop vs. Closed-Loop Control

The Logic of Tension Control for Any Web Process

Causes of Tension Variations

Tension Keys for Laminating

Registration Basics: Machine Direction Alignment

Traction Requirements of Idlers and Driven Rollers

Specifying Rollers

Roller Alignment Needs and Methods

DAY 2

SECTION 2

Wrinkling Causes

Wrinkling Remedies

Spreading and Anti-Wrinkle Rollers

Measuring and Modeling Nipped Rollers

Air Floatation and Turn Bars

Web Tracking Rules

Passive vs. Automatic Guiding

Choosing the Right Web Guide