The 1-2-3's of Setting Tension

1. Starting point based on literature, machine builder guidelines or experience

2. Note whether you have high and/or low tension defects as a result.
   If only high tension defects > reduce tension
   If only low tension defects > increase tension
   If both high and low > optimize

3. Economic Optimization

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Tension Setpoint Guidelines - 1

- Common Materials
  - Machine Builder Recommendations
  - TAPPI
  - Literature
- Any Material
  - 0.5-1.0 PLI per mil of **thickness**
  - 10-25% of MD tensile **strength**
  - Best tension is approx. proportional to strength or gauge
    New Tension / Old Tension = New Gauge / Old Gauge
  - If your practice is different from above, find out why

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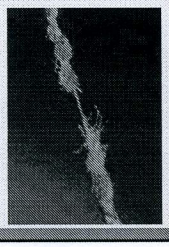
Too MUCH Tension – 2a

- Necking (ductile or rubbery materials)
- Web Breaks (brittle materials)
- Wrinkles
- Wound Roll Defects



- Ten$ion Dependent:
  - Cu$tomer complaint$
  - Rejectable wa$te
  - Downtime$

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