

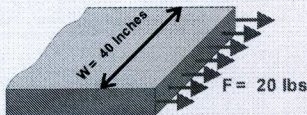
Tension Sensitive Examples

- Flatness: Bagginess & Curl
- Geometry: Length, Width and Thickness
- Position: Path and Registration
- Runnability (Web Breaks)
- Winding: Roll Quality
- Wrinkles

4

What is Tension?


- Force : rope, string, wire, struts
- Force / width : webs
- Force / width / thickness : engineer's stress

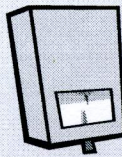


$$\text{Tension} = F/W = 20 \text{ lbs} / 40 \text{ inches}$$
$$\text{Tension} = 0.5 \text{ lb/in} = 0.5 \text{ PSI}$$

5

How to Measure Tension

- Web Sag 
- Brake Current/Pressure
- Motor Amperage
- Dancers that are calibrated
- Load Cells are Best !!



6
