Wrap angle is the distance in degrees that the tensioned material contacts the sensor roller. TMI will typically show this as the sum of the deflection angles $a_1$ and $a_2$. When angles $a_1$ and $a_2$ are known, then the force on the sensor can be calculated to determine the tension sensor's capacity.

**FIGURE 7**

**MATERIAL WRAP ANGLE ON SENSOR ROLLER**

**FIGURE 8**

**MATERIAL WRAP ANGLE MINIMUM AND MAXIMUM**

TMI tension sensors can be designed to work with wrap angles between 30° and 180°. Most 3 roller face plate models have wrap angles of 40° to 60°.