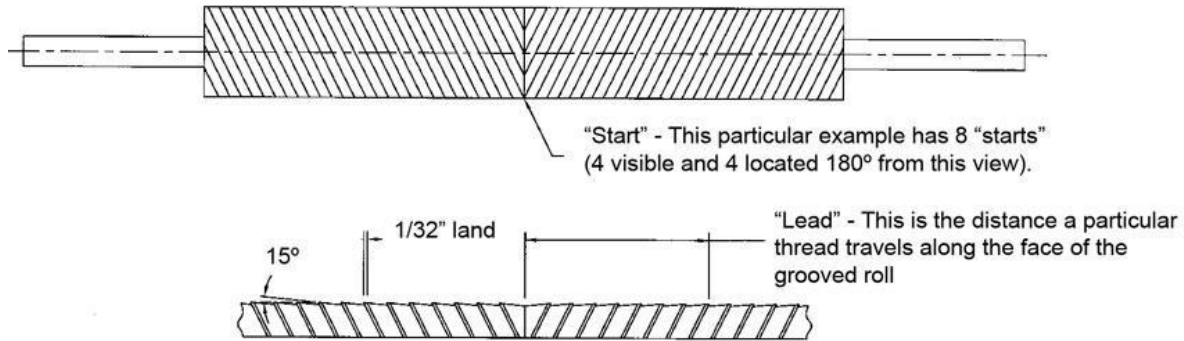


As this roll rotates, the web, under tension, deflects the lands along the face of the roll, in the direction that the groove is facing. This roll removes wrinkles because the pressure of the tension on the web across the face creates the flexing action of the lands from the center of the roll out to each edge of the roll face, this roll must rotate (it can not be used as a dead bar), so the surface speed of the roll matches the surface speed of the web (normally an idler roll).

Figure 20

Example of one type of Grooved Spreader Roll



There are many different types of grooved type spreader rolls. They can be made of aluminum, steel, stainless steel, plated aluminum, or steel and hard rubber. Grooves can be supplied in many different designs from multiple "starts" to one "start" and narrow "lead" to long "lead". Typically, grooved rolls with multiple starts will provide the greatest amount of spreading. This example is just one type of groove configuration. This type of spreader roll is designed primarily for use on textiles and nonwovens. It has limited applicatin in foils, paper, and films.

Figure 17

