



**POLYMAG TEK INC.**  
Manufacturing & Technology

215 Tremont Street, Rochester, New York 14608  
Tel. 800/787-0830 • Fax 585/235-8395 • www.polymagtek.com

*Designed and manufactured in the U.S.A.*

## Polymag Tek High Traction Idler Rolls

### **Two Problems: Slippage and Creasing**

Proper idler performance is a critical parameter in your high speed conveyance process. If the idler rolls slip, scratches and resultant particle contamination dramatically increase product defects. Misaligned idlers and/or excessive web tension cause web creasing and foldover leading to waste.

### **One Solution:**

Our precision-made High Traction Idler Rolls solve both of these problems, and have demonstrated their superiority in the extremely demanding manufacture of magnetic tape.

**Slippage:** Idler slippage caused by the boundary layer effect can occur at web speeds as low as 200 fpm, well below typical process speeds. Just 1/3 the weight of conventional rolls to minimize inertia, our High Traction Idler Rolls have a special hardened surface finish which resists abrasion. The special surface finish breaks the boundary layer and maintains equal web-idler speeds in high speed/thin film/low tension web-conveyance operations.

**Creasing:** The High Traction Idler Roll design also eliminates web creasing and foldovers caused by tension lines. The High Traction Idler Roll acts as a spreading device on thin webs, imparting lateral forces on the film, maintaining flatness and stability across the entire width.

### **Many applications:**

**System Retrofits:** The High Traction Idler Roll is a cost-effective way to upgrade an existing system. Make the conversion to thin web or higher speed conveyance without the installation of expensive helper devices or web spreaders. The High Traction Roll easily replaces conventional idlers. Available in standard support as well as cantilevered design.

**Lower Tension Conveyance:** The high traction characteristics of our Idler Roll make it ideal for low tension applications. Example: lower tensions are required in magnetic tape solvent dryers. Dryer temperatures can significantly reduce the yield strength of base films. Permanent deformation of the film can occur at tensions as low as 1/2 pli when dryer temperatures exceed 90 C. High Traction Idler Rolls run successfully at tensions as low as 1/4 pli to eliminate base film deformation! Incorporate our High Traction Idler Rolls into your low tension line for the same success.

**Quality Upgrade:** Immediate product quality improvements are achieved by integrating our High Traction Idler Rolls into your process. Eliminate scratching and creasing, and gain the benefits of lower yields losses and immediate investment payback!

### **Break Film/Idler Boundary Layer Effect**

- Provide no-slip traction at far higher speeds than conventional idlers
- Permit running of thinner films, higher speeds, lower tensions
- Eliminate need for helper drives
- Eliminate film scratches and resultant contamination, increase yield
- Weigh 2/3 less for low inertia, hardened to resist abrasion



### **Provide Lateral Spreading On The Web**

- Eliminate creasing and foldover caused by tension lines
- Maintain flatness and stability across the web's full width
- Eliminates need for web spreaders

