



**POLYMAG TEK INC.**  
Manufacturing & Technology

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

# *Steel Roll Cleaner*

## *Technology Transfer from one Industry to Another*

### ***Background***

The SRC was originally designed to address the extremely demanding needs of the magnetic recording tape industry in the production of video tape.

When you watch a movie on your VCR at home, and you *don't* see a lot of the white dots interrupting the picture, you are seeing the benefits of good quality control in tape manufacture. It's not easy. One of the processes which ensures such quality is the calendaring rolls in series that apply heat and pressure to provide a uniform, smooth tape surface free of debris and surface irregularities.

A natural consequence of this process is that the chrome calendaring rolls pick off the debris and need cleaning themselves. In the past, this cleaning has been done off-line, requiring temporary shutdown of the process, if only to install a backup set of calender rolls, still a significant undertaking. This causes process stoppage/interruption and a reduction of process yields.

### ***Solution - Videotape and beyond***

Polymag Tek., has developed a system to clean calender rolls on-line. It consists of a roll-fed contact cleaner web which is actuated at pre-programmed intervals. The web contacts the chrome rolls for a user-determined time period, then reacts. Manual override is provided. The automatic process employs a sensor which compensates for diameter changes in the cleaner to provide uniform cleaning cycles and economical use of the cleaning web. In short, the SRC system provides automated maintenance of your investment in production and quality control/assurance systems, reducing or eliminating costly process interruptions, and increasing process yields.

### ***So Why Are We Telling You?***

As a result of extensive industrial contacts, it quickly became apparent to us that our finishing roll cleaning system has applications far beyond the magnetic tape industry. It is so superior in finishing roll contamination removal (wet or dry) that we are confident that we can solve any such debris problem.

**Patent #'s 5275104, 5842418**

### **Applications**

Our systems are custom-built to your needs and processes

### **Magnetic Media**

- Steel Rolls
- Chill Rolls
- Calendar Rolls

### **Film**

- Casting Rolls
- Contact Cleaning Rolls  
(A Polymag Product)

### **Paper**

- Steel Rolls (Calenders)



### **Printing**

- Steel Rolls
- Plating Rolls
- Blanket Rolls

### **Converting**

- Steel Rolls
- Laminating Rolls
- Film/Foil
- Slitter Edge Debris
- Miscellaneous Process Debris

### **Textiles**

- Steel Rolls
- Printing Rolls

### **Food**

- Wet Debris on Film/Foil