



# POLYMER CLEANING ROLLERS

## Polymer Cleaning Rollers for Contact Cleaners



### ABOUT SDI

SDI is the largest independent manufacturer of contact cleaning systems in the world.

Founded in 1979, we offer highly engineered products dedicated to yield improvement in dust-critical production areas.

### THE SDI PRINCIPLE

The SDI cleaning principle consists of three linked processes.



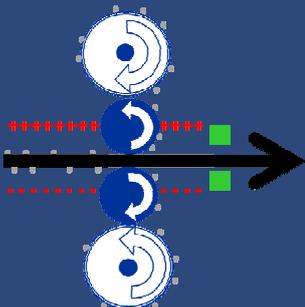
Specially formulated polymer rollers gently lift loose, dry contamination away from any flat surface.



The polymer rollers are in contact with an adhesive roll, onto which they transfer the lifted contamination. When saturated, the outer layer is simply peeled away.



Anti-static systems then prevent re-attraction of airborne particles to the cleaned substrate.



## Features

- ◇ Silicone-based or silicone-free formulations
- ◇ Ground rollers for perfect concentricity
- ◇ Wide range of Shore hardnesses
- ◇ Colour-coded for easy identification
- ◇ Replacement rollers for SDI and competitor machines
- ◇ Re-covered rollers for SDI and competitor machines, for environmentally conscious upgrades

## Applications

- ◇ Printed Circuit Boards
- ◇ Graphic Arts
- ◇ Glass Manufacture
- ◇ Converting
- ◇ Reel-to-Reel Printing
- ◇ Wood / Laminate Manufacture
- ◇ Any application where the removal of loose, dry contamination is essential

SDI offers the widest range of polymer formulations to ensure the perfect balance of cleaning and easy processing.

SDI works with customers to ensure complete understanding of the substrates to be processed.

For example: -

- ◇ How rigid is your substrate?
  - ◇ A soft roller may give the best cleaning, but may not be so suitable for delicate substrates.
- ◇ What size are your problem particles?
  - ◇ Less than 1 $\mu$ , and our SMC (Sub Micron Cleaning) formulations are best.

SDI will work with you to select the best formulation for your application.



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## Formulations

SDI offer a range of polymer formulations to balance the best cleaning performance against the ease of processing a particular substrate.

### Silicone-Based

**Light Blue**—silicone-based polymer suitable for most applications, cleaning particles down to 1µ in size. (35 Shore)

**Green**—silicone-based polymer suitable for delicate substrates, cleaning particles down to 1µ in size. (50 Shore)

**Dark Blue**—silicone-based polymer suitable for thick, rigid substrates, cleaning particles down to 1µ in size. (22 Shore)

### Silicone-Free

**Yellow**—silicone-free polymer suitable for most applications, cleaning particles smaller than 1µ in size. (35 Shore)

**Orange**—silicone-free polymer suitable for delicate substrates, cleaning particles smaller than 1µ in size. (50 Shore)

### IMPORTANT

**Material thickness is only a guide to how well a substrate can be processed. Shore hardness is given for indication only not as a processing guide.**

## Specifications

- ◇ **Shaft Material**
  - ◇ Type 304 stainless steel or equivalent
- ◇ **Balanced**
  - ◇ To minimum 1500rpm
- ◇ **Concentricity**
  - ◇ To maximum 0.25mm along the entire length with respect to the end shafts.

## Competitor Rollers

SDI can make polymer cleaning rollers for competitors' machines. This gives the customer the opportunity to upgrade his machine to SDI cleaning quality, or also to change the cleaning characteristics of his machine if his substrates have changed since the machine was originally purchased.

SDI also offer a **re-coating** service, where customers can send us their old rollers, to be stripped and re-coated in the polymer formulation of their choice. Even with two-way transport, this is a very cost-effective way to upgrade, and is of course far more environmentally friendly.

### QUOTATIONS

To allow us to **quote** accurately for polymer rollers, we require **all** the following important information: -

- ◇ Quantity required
- ◇ Polymer formulation
- ◇ Face length of polymer
- ◇ Outside diameter of polymer
- ◇ Shaft length
- ◇ Outside diameter of shaft

See the diagram at the bottom of this sheet for explanations of the dimensions.

### MANUFACTURE

To **manufacture** accurately, we also need **one** of the following: -

- ◇ SDI part number
- ◇ Engineering drawing
- ◇ Old roller that we can use as a template sent to our **SDI AMERICAS** address.

