



FILM, SHEET & PANEL CLEANERS

IL4 (with Thin Film option)

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.



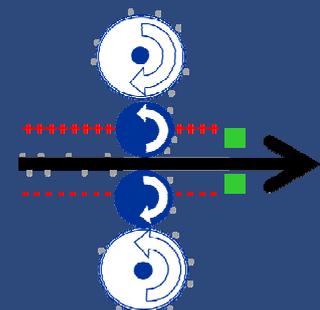
Specially formulated polymer rollers gently lift loose, dry contamination away from any flat surface.



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.

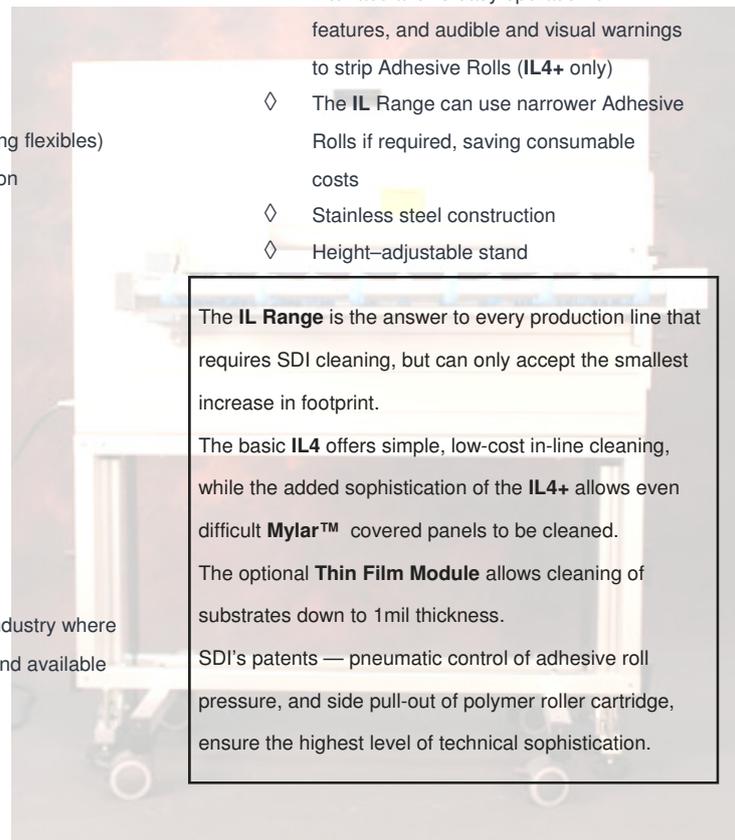


Features

- ◇ Double-sided cleaning without scratching or abrasion
- ◇ Slimline profile (only 8") allows insertion into any production line with minimal disruption.
- ◇ Side pull-out of both Adhesive Rolls and Polymer Rollers
- ◇ **Patented** Polymer Roller cartridge for easy swap or maintenance
- ◇ Anti-static bars prevent re-attraction of airborne particles
- ◇ Pneumatic control of Adhesive Roll (rather than being gravity fed) allows perfect cleaning pressure to be set
- ◇ Sophisticated PLC allows precise adjustment of machine features or interface allows easy operation of features, and audible and visual warnings to strip Adhesive Rolls (**IL4+** only)
- ◇ The **IL Range** can use narrower Adhesive Rolls if required, saving consumable costs
- ◇ Stainless steel construction
- ◇ Height-adjustable stand

Applications

- ◇ Printed circuit manufacture (including flexibles)
 - ◇ Prior to dry-film lamination
 - ◇ Prior to exposure
 - ◇ Prior to AOI
 - ◇ Prior to lay-up
 - ◇ Prior to soldermask
- ◇ Graphic Arts
 - ◇ Screenprinting
 - ◇ Digital printing
- ◇ Glass
- ◇ Flat panel displays (FPD)
- ◇ Photovoltaic cells
- ◇ Other industries
 - ◇ Any high-specification industry where dust removal is critical and available footprint is minimal.



The **IL Range** is the answer to every production line that requires SDI cleaning, but can only accept the smallest increase in footprint.

The basic **IL4** offers simple, low-cost in-line cleaning, while the added sophistication of the **IL4+** allows even difficult **Mylar™** covered panels to be cleaned.

The optional **Thin Film Module** allows cleaning of substrates down to 1mil thickness.

SDI's patents — pneumatic control of adhesive roll pressure, and side pull-out of polymer roller cartridge, ensure the highest level of technical sophistication.



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Machine Options

- ◇ **Machine Width**
 - ◇ The **IL4** is available in 24.5", 30" and 40" cleaning widths.
- ◇ **Thin Film Cartridge (TFC)**
 - ◇ The standard polymer roller cartridge (**STD**) can be interchanged with our **Thin Film Cartridge**, allowing substrates down to **1mil** to be cleaned. (See photo below)
- ◇ **Multiple Conveyor Types**
 - ◇ We have a variety of front and rear conveyors to suit a wide variety of substrates.
 - ◇ **Wheels** (driven and non-driven) - provide support with minimal contact.
 - ◇ **Bands** (driven) - for more flexible substrates
- ◇ **Multiple Conveyor Lengths**
 - ◇ 8", 20", 26", 30"
- ◇ **Custom Speed Packages**
 - ◇ The standard motor can be upgraded to give faster line speeds.
- ◇ **Control Options**
 - ◇ **IL4** offers: -
 - ◇ Analogue speed and direction control
 - ◇ **IL4+** offers
 - ◇ Touchscreen control
 - ◇ Delay Contact Cleaning minimises **Mylar™** peeling
 - ◇ Panel counter and audible alarm for timely servicing of Adhesive Rolls
 - ◇ Password protected settings



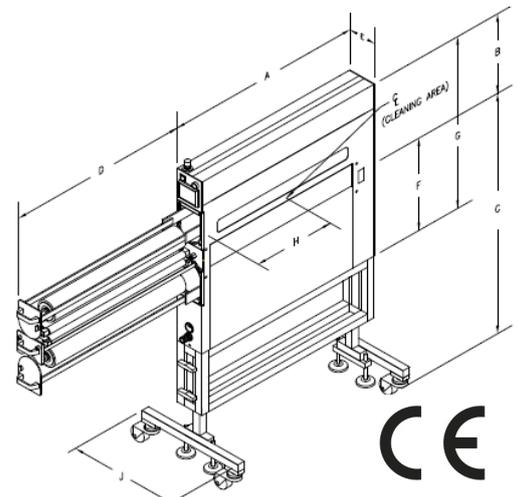
Mylar™ is a trademark of Dupont Teijin Films

Specifications

- ◇ **Substrate Dimensions**
 - ◇ Thickness (STD): ~0.004" - 0.350"
 - ◇ Thickness (TFC): ~0.001" - 0.100"
 - ◇ Length: ~4" minimum
 - ◇ Width (**IL4-24**): 24.5" maximum
 - ◇ Width (**IL4-30**): 30.0" maximum
 - ◇ Width (**IL4-40**): 40.0" maximum
- ◇ **Maximum Speed**
 - ◇ Standard 60fpm
 - ◇ Fast 120fpm
- ◇ **Pass Height (with stand)**
 - ◇ 36.5" — 43.0"
- ◇ **Services Required**
 - ◇ Power 110V or 220V AC
 - ◇ Air 5 bar clean dry air

Dimensions

A	37.13" (IL4-24), 43.13" (IL4-30), 62.13" (IL4-40)
B	16.6"
C	36.5" — 43.0"
D	31" (IL4-24), 37" (IL4-30), 47" (IL4-40)
E	7.9"
F	11.9"
G	28.5"
H	15.3" (IL4-24), 18.3" (IL4-30), 23.3" (IL4-40)
J	9" — 22"



POLYMER ROLLERS

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

- ◇ **Light Blue**—silicone-based polymer suitable for most applications, cleaning particles down to 1µ in size.
- ◇ **Green**—silicone-based polymer suitable for delicate substrates, cleaning particles down to 1µ in size.
- ◇ **Yellow**—silicone-free polymer suitable for most applications, cleaning particles smaller than 1µ in size.
- ◇ **Orange**—silicone-free polymer suitable for delicate substrates, cleaning particles smaller than 1µ in size.

IMPORTANT

Material thickness is only a guide to how well a substrate can be processed.

It is *rigidity* rather than thickness that determines a substrate's ability to be cleaned by our systems.

If in doubt, please send samples to our laboratory for testing at the SDI AMERICAS address.