

# Web Cleaning and Static Control

## The Challenge

In tropical regions such as ASEAN, keeping printing webs clean and dust free becomes more difficult in air conditioned spaces with relative lower humidity to the surrounding. Under this condition, dust and dirt accumulation on overlaminates and print areas typically also increase.

## Solution

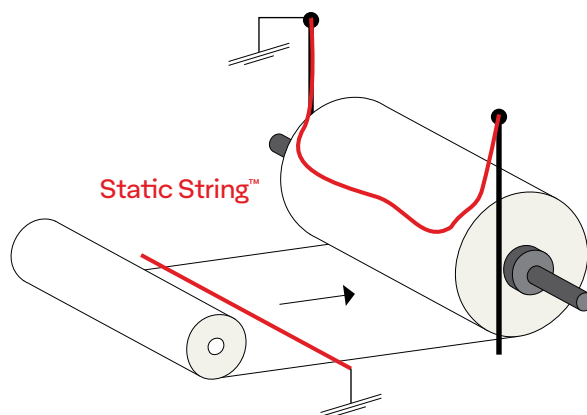
To keep the web clean, one must first determine the source of the dirt.

- A shop towel can usually be placed against the face of the web to wipe it as it unwinds to trap dirt that may have come from our processes or the material itself. If this is the source, the shop towel may be adequate alone. If the shop towel doesn't show signs of dirt, dust or debris, the press may be the source of contamination.
- It is critical to maintain good housekeeping. This holds for our operations and the pressroom. Particularly, cleaning around and under the equipment is critical. Even the blowers in the dryers should be thoroughly cleaned.
- Look for dust contributions from other processes. For instance, a bindery operation adjacent to a printing press may require isolation to keep paper dust from the bindery from contaminating the press and ink systems.
- Web cleaner selection will depend upon how stubbornly the dirt or debris clings to the substrate. Often a simple cloth wipe will work. Sometimes more aggressive means are necessary, including tack cloths, vacuums and contact web cleaners.
- The substrate must be clean and static neutral so to not attract dirt from the surroundings. Cooler, dry weather increases the potential for static charges to be induced into the pressure-sensitive laminate. When the material has a static charge, it will attract dust and dirt from around the machine.

## Passive Static Neutralizers

Passive static guards, which include copper grounding tinsel, should be the minimum effort used to reduce static. It is important to remember that the passive device must be grounded. A positive ground to bare metal on the press is preferred. Place the passive ground close to the moving web. Static string can drag on the web without scratching delicate surfaces. Dryer fabric softener sheets can also be used as passive static eliminators.

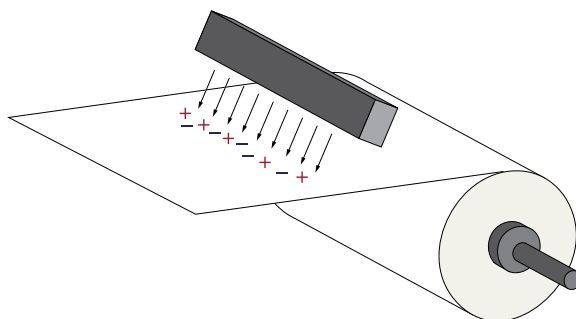
Passive devices should be placed at the unwinds and rewinds, as well as at each nip point on press. When material passes through a nip, a static charge is generated.



## Active Static Neutralizers

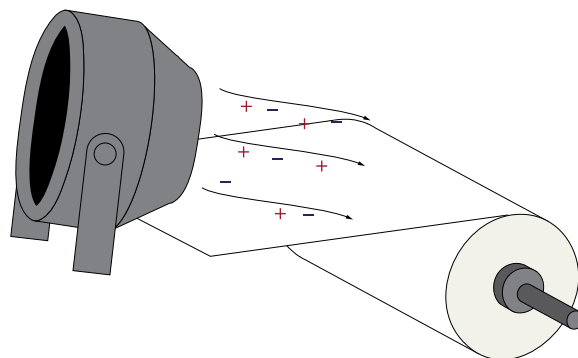
Active static neutralizing equipment generates an ion field to neutralize the charges. These are electrical devices. These often are offered with a web cleaner package.

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## Ionized Air Blowers

Ion blowers are recommended for products, like label sheets, that may require post-press antistatic treatment. Commercial blowers are available but the fans may be too strong for the sheets. Work with your supplier to get the appropriate equipment. Many handheld hair dryers on the market today have ion generators that will dissipate static charges. This can provide a low cost, short-term alternative.



## Summary

Clean your equipment throughout the process, clean the material, remove any static, and if needed, employ more aggressive web cleaning immediately before critical press operations.

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