

**Narrow & Wide Web Cleaning System**

# StaticControls **WebVac**

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# You can clean up with WebVac!

## The Innovative Tool to Reduce Defect and Improve Profits

The WebVac Web Cleaning System from *Static Clean* is a continuous-duty cleaning system designed to provide contact or non-contact cleaning of narrow and wide webs in a variety of critical applications – enabling converters the ability to simultaneously improve the quality of product and increase profits by reducing rejects. In a single package, the WebVac combines three proven cleaning technologies – powerful vacuum, static neutralization, and compressed air blow-off to remove dry contaminants from narrow and wide webs quickly and efficiently. Once removed, the WebVac captures and collects the contaminants for safe and easy disposal. Don't continue to suffer with process problems that rob you of time and money, clean up with WebVac!

### What is Included in the WebVac system?

The WebVac incorporates several key elements that work together to provide consistent cleaning performance:

**Contact Cleaning Brush** - Gently brushes the web surface to dislodge embedded particles.

Height adjustable to suit the application.

**Static Neutralizing Bar** – A shockless electrical static bar, complete with a remote high voltage AC transformer and 6 feet of alpha shielded high voltage cable. Safe to operate and easy to maintain.

**Vacuum Hood** – Features a tapered design to deliver consistent results by evenly distributing the envelope of suction across the web.

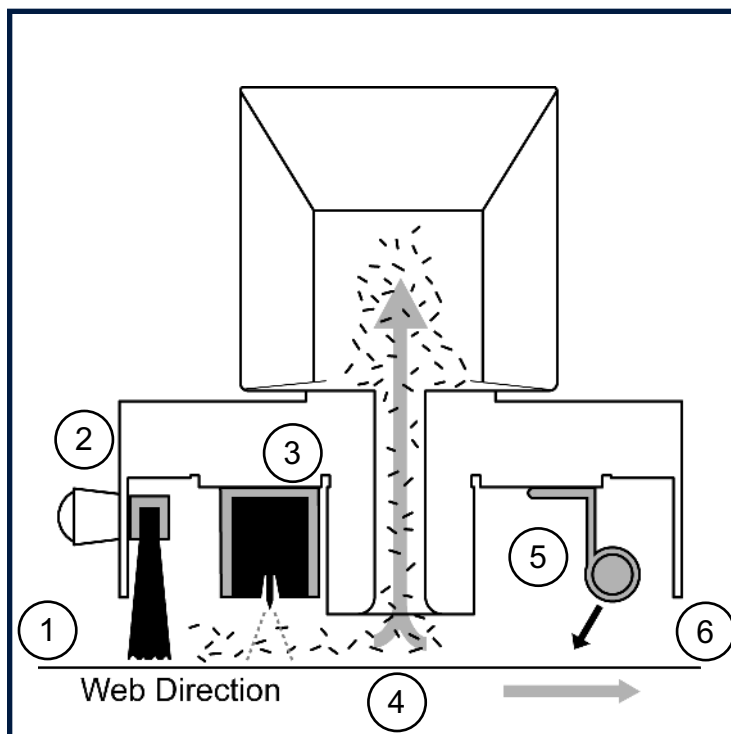
**Stainless Steel compressed air blow-off tube** – The tube's uniform hole placement assures uniform edge-to-edge blow-off to complement the suction provided by the vacuum hood and collector.

**High volume vacuum/collector** – Creates the powerful suction that captures contaminants lifted from the web surface and holds them for later disposal.

Mag Gage -

Filter -

Sound Attenuation -



### How does the WebVac system work?

1. Electrostatic attraction caused by static charges on the web binds particles, like slitter dust, to the web surface. This attractive force is strong enough to resist cleaning by rotary brushes or blow-off nozzles.
2. The contact cleaning brush gently brushes the web, barely making contact with the web surface, to dislodge particles embedded in the surface of the web. The adjustable knobs and mounting brackets enable the user to adjust the positioning of the brush, even lifting out of the way entirely in applications involving delicate webs that could be damaged by contact cleaning.
3. The static neutralizing bar mounted on the front of the WebVac hood neutralizes static electricity on the web, eliminating the electrostatic attraction holding contamination in place.

## How can the WebVac help you?

Consider these typical applications

**Die Cutting** – Located just after a rotary die cutter, a WebVac hood captures and contains particle contaminants left on labels by the cutting process. Removing the particles before rewinding and packaging assures the customer of a clean product every time.

**Printing** - A WebVac installed at the front end of a press removes particles that cause voids in the printed image or contaminate the print heads, causing repetitive print defects. Recontamination is virtually eliminated because the web is electrostatically neutral when it leaves the WebVac hood.

**Slitting** - A WebVac hood mounted immediately after a slitter knife lifts and captures the dust and “angel hairs” created when a dull knife splits the web instead of cutting cleanly. Removing this debris after slitting prevents it from embedding in the web surface during rewinding.

**Punching** – The powerful suction created by the WebVac Collector enables the WebVac system to catch and remove the punch-outs created during the manufacture of pin-fed forms. The collector’s pull out filter drawer allows easy disposal or recycling of the waste.

**Thermoforming** – Mount the WebVac before a thermoforming die to lift and capture contaminants that would otherwise be permanently trapped in the surface of the plastic during thermoforming, resulting in excessive rejects.

**Laminating** – Clean the substrate with the WebVac system immediately before lamination and rejects will fall and productivity will jump because the WebVac hood removes particles before they can cause defects.

## Consider the WebVac benefits...

- Removes contaminants and neutralizes static electricity in one step.
- Compact design, for installation in confined spaces.
- Quiet operation, less than 70dbA at 2 feet.
- Rugged all-metal construction for durability.
- Low maintenance, no operator intervention required.
- Designed for continuous operation.
- Adjustable mounting brackets for accurate positioning.
- Choice of side draft or triangle.
- Choice of contact or non-contact cleaning.
- Affordable and economical.
- Loosens, lifts and captures contaminants for thorough cleaning and reduced contamination on the web.
- Easy to install and easy to operate.

4. The vacuum collector draws a powerful suction through a narrow slot in the WebVac hood, lifting contaminants from the web surface as it passes within cleaning range less than an inch below. The tapered shape of the hood distributes the vacuum evenly across the entire width of the web for uniform edge-to-edge cleaning.

5. A perforated stainless steel air tube mounted along the trailing edge of the cleaning hood directs a stream of compressed air across the web at right angles to the web surface. The resulting turbulence kicks particles from the web surface into the air where they are captured in the envelope of suction created by the hood instead of contaminating the surrounding environment or recontaminating the web.

6. As the web moves away from the hood, contamination has been lifted from its surface and it will remain cleaner because the WebVac has left it static free.



## What is the connection between static electricity and defects?

Contact and separation between surfaces often generates static electricity through an effect known as triboelectric charging. After the web contacts parts of modern web printing and handling equipment (pinch rollers, print heads, rotary die cutters, idler or nip rollers, etc) static electrical charges measuring tens of thousands of volts can suddenly appear on the surface of common materials like coated paper, polycarbonate, polyester, polyethylene and acetate.

The static charge creates an electrostatic field which attracts fine particles already present in the surrounding environment or those created by various operations such as slitting, punching or perforating. Like electric flypaper, the electrostatic attraction binds the particles to the surface, frustrating conventional cleaning techniques. In fact, many conventional cleaning methods using wipers and brushes actually worsen the problem by creating a vicious cycle of contamination. As they rub against the web they generate more static electricity, which attracts and binds more contaminants to the web, which prompts more cleaning, which generates more static electricity, and so on.

The particles trapped on the web surface can cause a host of contamination related defects, including blanks and hickeys in printed material, inconsistent lamination, imperfections in thermoformed parts and generally poor cosmetic appearance. The connection between static electricity and defects is simple – static electricity attracts particles to the web, particles lead to rejects, and rejects lead to lost profits and missed opportunities. The solution is just as simple...WebVac!



## How can you get a WebVac system of your own?

Simply call *Static Clean* International with a description of your application to put the WebVac system to work for you. The following information will help us to tailor a solution to your specific needs:

- Describe the process you are running and the type of problem you are experiencing.
- Identify the web material, its width and the typical web speed in your application.
- Tell us the type (brand and model) of machine you are running.
- Is top and bottom cleaning required?



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