



## **Deposit Control Technologies For Paper Machine System Cleaning**

# DuBois Paper Machine System Cleaning

For nearly 100 years, DuBois has been solving issues with paper mill deposition. DuBois continues to develop more effective and safer cleaning solutions, many of which are patented technologies.

## Paper Mill Cleaning Applications

### Boilouts

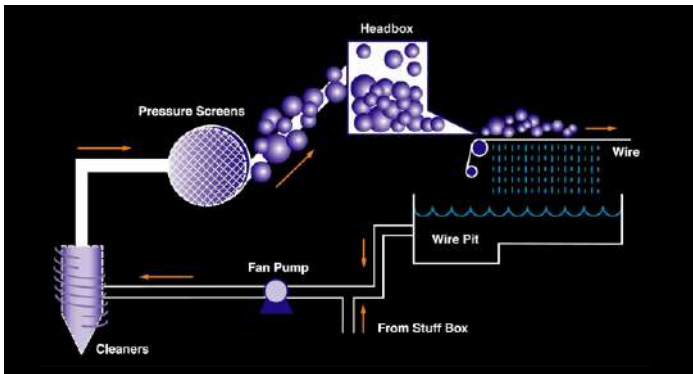
Boilout programs are the most common downtime procedures used to clean the internal surfaces of papermaking systems.

Key applications:

- Paper machine wet-end
- Stock preparation systems
- Coater systems
- Starches, pigments, binders, polymers dyes and other support systems

Benefits:

- Improve sheet quality
- Improve machine runnability
- Improve mill profitability



### Bubble-Up®

The Bubble-Up is a unique process developed by DuBois to address the most critical deposit control area of the paper machine. A Bubble-Up is an internal foam cleaning of the approach piping, inlet manifold, headbox and slice lip.

Benefits:

- Targeted to areas where runnability issues generally begin
- Less time required than a boilout
- Higher concentration than a boilout with lower chemical use
- More flexibility to complete other outage maintenance during cleaning



### Machine Surface Cleaning

Foam cleaning is a mixture of cleaning chemicals, water and air which adheres to the surfaces to be cleaned. The foam solution rinses freely with water after cleaning.

Gel cleaning applies a ready to use cleaning chemical solution. A thin gel coat can stay in contact with a surface for an extended period time (up to hours), and then rinses freely with water. Gel cleaning can be more economical and effective than other cleaning methods.

Benefits:

- Increased cleaning efficiency as the products cling to vertical surfaces and allows greater contact time
- Less backsplash than liquid products, and less chance for the user to contact the chemical
- Lower cost than other chemical cleaning methods or hydro blasting

Application areas include:

- Paper machine frames
- Rolls and forming elements
- Dryer cans and fabrics
- Coaters and size presses
- Stock, water and process additive chests
- Floors, basements and walking surfaces

DuBois will work closely with your employees to ensure proper procedure and training are established for safe and efficient foam/gel cleaning. DuBois can also provide equipment suited to your cleaning needs.



## Scale Control

Scales from barium, calcium, and sodium have a tendency to build in areas of high temperature.

Problems associated can be:

- Headbox buildup
- Reduce flow control
- Reduce heat transfer
- Plugged shower nozzles
- Poor vacuum control

DuBois has products to remove scales through downtime and on-the-run cleaning.

## Innovative Deposit Control Technologies

DuBois has an extensive line of cleaners encompassing most industrial chemical product classes. Some key technologies include:

### Altrox®

Altrox is a patented cleaning line that is effective in removing many soils. Altrox is a highly successful coating system cleaner. It is also an paper machine boilout and bubble-up additive to aid in the removal of scale, thick layer deposits and biofilm. Altrox products are also noncorrosive to skin (GHS classification).

### Sure Safe®

Sure Safe is a line of safer cleaners based on neutral or noncaustic raw materials. The line includes products that are noncorrosive to skin and eyes and therefore require less safety equipment when used.

### Neutra Solve™

The patented Neutra Solve line includes unique products specifically to remove paper mill stickies and other organic soils. The products have significant cleaning advantages over kerosene, mineral spirits or other hydrocarbon based solvents. They can provide cost savings, reduced VOC use and better flammability ratings than alternate products.

### DuJel®

DuJel is a full line of gel cleaners that allow the cleaning product to stick to vertical surfaces, effectively allowing for extended contact time of the cleaner and the deposit.

*Patents include US 9512387, US 9512387 and CA2764794C.*

## Planning a Downtime Cleaning?

Maintaining the cleanliness of your machine is critical to its longevity and can reduce deposit related defects. DuBois is proud to employ experts on downtime cleaning methods that will help get your machines clean quickly and efficiently.

Contact your local DuBois representative today or visit [www.dubois-paper.com](http://www.dubois-paper.com).





**DuBois Chemicals**

3630 East Kemper Road  
Sharonville, OH 45241-2011  
800 438 2647

1 First Canadian Place  
100 King Street West, Suite 1600  
Toronto, ON M5X 1G5  
866 861 3603

[www.duboischemicals.com](http://www.duboischemicals.com)  
[www.dubois-paper.com](http://www.dubois-paper.com)