Reducing Dust Mopping

How the Shawnee Mission School District reduced their operating costs with the Whisker Vacuumized Presweep

White paper by NSS Enterprises

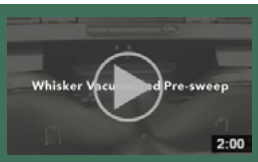
NSS Enterprises helped the Shawnee Mission School District lower their operating costs by switching from a traditional dust mop then scrub process to the innovative Whisker Vacuumized Presweep.

The Shawnee Mission School District, located about ten miles from downtown Kansas City, Missouri, is the third largest school district in the state of Kansas. With 33 elementary schools, five middle schools and five high schools, keeping the facilities in top condition is a major project.

When the school district decided to replace their walk-behind scrubbers with rider scrubbers, our local distributor was offered a chance to show the Champ line of rider scrubbers.

After looking at the layout of the high schools, the distributor recognized that this was a fantastic opportunity to reduce their operating costs by using the Whisker Vacuumized Presweep. After a short trial period, the Supervisor of Custodial Services for the district was convinced that the Whisker provided substantial savings and ordered five Champ 2929 RB scrubbers, each equipped with Whisker Vacuumized Presweeps.

Want to see the Whisker in action?



Watch the video on YouTube

The Whisker Process

The Whisker Vacuumized Presweep lets custodians change the way they work to reduce dust mopping labor. Rather than dust mopping the entire floor, they only need to sweep spots where the Whisker can't reach.

In Shawnee Mission's case, the only area that needed to be hand-swept was an area near a row of pillars in the main entry hall.

Once all the debris is swept to a spot where the Whisker can get to it, all that is left to do is scrub the floor.

Innovative Solution

Putting a mechanical sweeper on an automatic scrubber is not a new idea. The Whisker, however, adds a significant twist to this idea by including a vacuum system. Fine dust is sucked under the ramp at the front of the machine while large debris, like bits of paper, are swept up the ramp to a debris hopper.

This patented vacuum-under-the-ramp makes all the difference in capturing fine dust. It also captures fine debris that would be caught in the squeegee otherwise.

"The Champ 2929 RB with Whisker reduced the labor cost by over 45%."

Measuring Whisker Savings

The savings when using the Whisker come from the efficiency gained by eliminating the dust mopping process. In order to measure the savings, we sent our engineering team out to study the process at Shawnee Mission Northwest High School.

The engineers studied two different processes:

- Dust mopping with a 60" dust mop, then scrubbing with a 33" walk-behind scrubber.
- Spot sweeping with a broom, then scrubbing with a Champ 2929 RB equipped with a Whisker Vacuumized Presweep.

The area studied was 26,500 square feet and the custodian's wages, including benefits, were $16.50 per hour.

The Results

Process	Dust Mopping/ Sweeping (Hours)	Scrubbing (Hours)	Total (Hours)	Labor cost per 1000 ft^2 cleaned	Percent Saved
Dust mop and 33" scrubber	0.80	1.67	2.47	$1.54	--
Champ 2929 RB with Whisker Vacuumized Presweep	0.27	1.07	1.34	$0.83	**46%**

For the area studied, the Champ with Whisker reduced the labor cost by over 45%. At that rate, each Champ used at the Shawnee Mission School District is generating **over $7,000 per year in labor savings.**

Savings Estimate Worksheet

Based on productivity rates measured during this study, you can use one of the two formulas below to estimate your potential annual labor savings if you owned a Whisker Vacuumized Presweep.

Option 1: Use this formula if you own a 33" walk behind scrubber and you want to see how much you can save with a Champ 2929 with a Whisker.

0.0	X	0	X	$ 0.00	X 0.0426 =	$ 0.00
Area to be cleaned *(in thousands of sqaure feet)* *Example: For 50,000 ft^2, enter 50.*		Number of cleanings per year *Example: For every day, enter 365.*		Custodian's hourly wages and benefits Example: Enter 16.50 for $16.50 per hour.		Annual Labor Savings

Option 2: Use this formula if you own a 29" rider scrubber and you want to see how much you can save with a Champ 2929 with a Whisker.

0.0	X	0	X	$ 0.00	X 0.0198 =	$ 0.00
Area to be cleaned *(in thousands of sqaure feet)* *Example: For 50,000 ft^2, enter 50.*		Number of cleanings per year *Example: For every day, enter 365.*		Custodian's hourly wages and benefits Example: Enter 16.50 for $16.50 per hour.		Annual Labor Savings