

RAMVAC® Slugbuster™ Evacuation System Cleaner Comparison Study

Purpose:

1. To evaluate the cleaning effectiveness of *RAMVAC® Slugbuster™* evacuation line cleaner compared to a competitor product when utilized for 6 months in an active dental practice.

MATERIALS:

- *RAMVAC Slugbuster (DentalEZ®)*
- *RAMVAC Slugbuster* mixing container
- *Monarch Cleanstream Evacuation System Cleaner (Air Techniques)*
- *Monarch Cleanstream* dispenser
- 4 Dental operatories

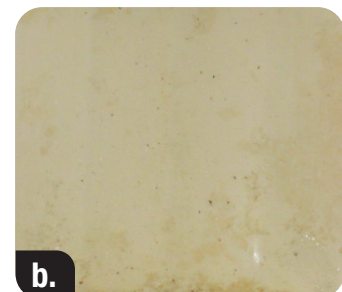
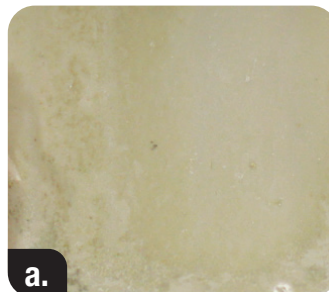
Methods

In a well-established dental practice, four operatories were assigned one of two evacuation line cleaning systems (*RAMVAC Slugbuster* or *Monarch Cleanstream*). New evacuation tubing was installed in each operatory prior to the initiation of the study (Figure 1). Participating dental staff were provided with test evacuation line cleaning material, the associated mixing/dispensing system, and instructed on use of each cleaning solution as per manufacturers' instructions (daily for 6 months). One-inch samples of treated evacuation lines were collected at 2, 4, and 6 months. At each time interval, test specimens were visually inspected and photographed.

Figure 1. Clean, untreated evacuation line.



Figure 2. Representative photos of evacuation lines treated for 2 months, a. *RAMVAC Slugbuster* b. *Cleanstream*



Results

At the 2 month test period, *RAMVAC Slugbuster* and *Monarch CleanStream* performed in similar manner with little to no accumulation of organic debris (Figure 2). Performance differences were noticeable after 4 months of treatment (Figure 3). Little accumulation (less than 10%) was observed in those lines treated with *Monarch CleanStream*. At the completion of the study (6 month treatment), little to no accumulation of organic debris (less than 5%) was observed with every day use of the *RAMVAC Slugbuster* cleaning system (Figure 4).

In contrast, lines exposed to *Monarch CleanStream* cleaning system, when utilized in the same manner, demonstrated more accumulated debris. It should be noted that both lines treated with *Monarch CleanStream* demonstrated visible differences in bioburden accumulation. However, both lines still contained an average of 75% more build-up of organic debris than lines treated with *RAMVAC Slugbuster*.

Figure 3. Representative photos of evacuation lines treated for 4 months, a. *RAMVAC Slugbuster* b. *Cleanstream*

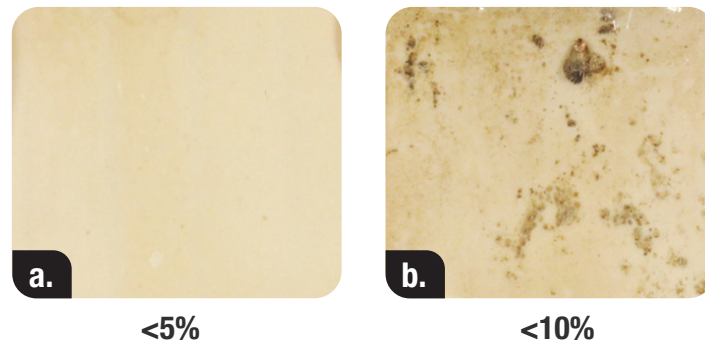
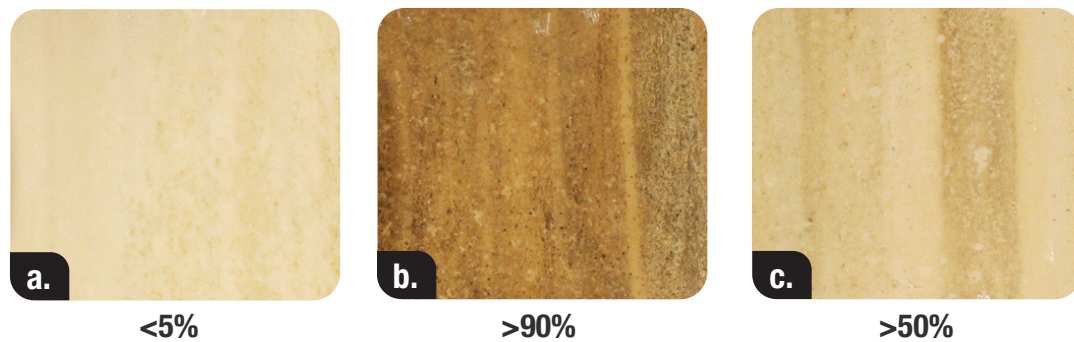


Figure 4. Representative photos of evacuation lines treated for 6 months, a. *RAMVAC Slugbuster* b-c. *Cleanstream*



Conclusion

In this study we incorporated two evacuation cleaning systems into a dental practice's daily routine in order to compare their cleaning effectiveness. For the first 2 months both cleaning systems performed in a similar allowing for little or no buildup of organic debris. After the 4-month testing interval, *RAMVAC Slugbuster* demonstrated that it was able to inhibit bioburden accumulation in the evacuation lines to a greater extent than the *Monarch CleanStream* cleanser.