

Specialty Manufacturing customizes adapter to improve reliability of SecureTip saliva ejector

When working with a patient, the last thing a dentist or dental hygienist should have to worry about is the saliva ejector.

But if a lever gets bumped, an adapter is dropped or a straw pops out of place, time and focus are drawn away from the patient to fix the issue.

SecureTip brought its innovative saliva ejector to market to solve these everyday interruptions. Rather than rely on friction, a threaded straw screws into the adapter to securely lock the straw in place.

After initial use in the field, the company sought a new adapter design to improve clinical performance. The original design had inconsistencies in straw fit, and the lever to control suction was loose.

To redesign its adapter, SecureTip turned to Specialty Manufacturing (SMC), formerly known as Marr Valve Company, for its expertise in precision-machined valves and components for the dental industry.

Proper thread fit and tight valve tolerances in the adapter design were essential to improve reliability and address performance issues with the original device.

SMC collaborated with SecureTip on a design that met their needs and was cost-effective to manufacture. SMC's engineering team looked to a proven design from its adapter line that could be customized to accommodate SecureTip's unique threaded straw tip. This threading was paramount to a well-fitting and smooth connection of straw and adapter.

To ensure the adapters are manufactured to the highest quality standards, SMC inspects the products in each batch against tolerance specifications every hour.

"Our design and inspection processes ensure the adapter's threads are perfectly aligned with the straw, so clinicians can easily attach the two in a matter of moments," said Cheryl Monson, operations manager with SMC's dental division. "The tight tolerance of the valve helps hold the vacuum that's required for sanitary saliva ejection."

The adapter is built from anodized aluminum, to seal pores so the device can stand up to autoclaves while maintaining its lightweight sturdiness. Curving the on/off lever around the adapter body eliminates the chance it can be bumped out of place. The lever controls the suction and flow via an internal spool, while two Viton® O-rings offer a tight, no-leak seal.

"Not only does this new adapter perform exceptionally, SMC's process meant we could deliver a cost-effective product to our customers," said Melissa Slayden, RDH, vice president of sales for SecureTip. "Their team was responsive to our design needs, and we were able to start sharing the new adapter with customers **within two weeks** of our first conversation."

To learn how SMC can help improve performance of your dental valves, call (320) 564-4279 or email info@marrvalve.com.