

## Leading Fast Food Chain Calls on Nason for Customized Solution

In November of 2007, when Nason was approached about customizing two switches for a blended drink machine, they didn't realize until later on that it was for one of the world's largest fast food chains. The machine, designed by a leading foodservice equipment manufacturer, would be unique to the industry. The equipment would be able to make either coffee or fruit beverages blended with ice. The machine would also feature a digital touch screen operation pad to increase ease of use for the operator. Additionally, it would feature an incorporated clean station for easy cleanup and ice storage on top for convenience.



### Features of the Blended Drink Machine

- 8 different flavor options
- Digital operating pad with touch screen
- Ice system on top
- Clean station incorporated

### Challenge

Because of the wide variety of drink products the machine could make, it needed 10 switches to fully function. Eight of the switches were for vacuum operation to monitor the various bags of flavor/syrup. Whenever a bag was close to being empty, the switch would sense the void and send an alert to the machine's control panel. This would inform the employee that it was time to change the bag. The other two switches would monitor the CO2 and water pressure. A specific level of water pressure would be required, because the blender would be cleaned after each time a beverage was made. Furthermore, the switches had to be NSF approved for sanitation purposes.

## Solution

The unique machine called for a unique solution. During the development period, which was from November of 2007 to December of 2008, the vacuum switch went through five generations of discussions and design changes. The switch started out as the standard Nason VM vacuum switch and quickly evolved to a customized solution. First, the connections were turned 180 degrees and fully insulated Molex connectors were incorporated. Then a special, all-plastic base was added with a NSF approved O-ring. Hostaform®, a polyoxymethylene copolymer, was used for its outstanding resistance to moisture and wear. Additionally, a flat portion was added to the base so that the wire leads would always be in the same direction. After the design was finalized, a variant number was assigned and the switches were ready to be sent to NSF for certification.

### Basic



### Customized



Nason, always going above and beyond to provide solutions for its customers, put a rush on the switches to receive NSF approval. NSF International, a not-for-profit, non-governmental organization, is the world leader in standards development, product certification, education, and risk-management for public health and safety. The switches would need to receive NSF/ANSI Standard 169, a certification established for special purpose food equipment and devices, which have special, complex, or multiple functions. After just five weeks, both the VM and SM switches received NSF approval and the switches were ready for production.

## Result

Production began in May of 2009 and Nason has been shipping a steady supply since. 80,000 VM switches and 20,000 SM switches have been supplied for 10,000 machines. The drink machines have been a huge success in North America, and as the restaurant chain looks to incorporate the machine into international operations, Nason anticipates another large order for the customized switch.

### What differentiates Nason?

- Complete customization on switches to fit the exact need of the application
- Offers more media connections than any competitor
- Free switch samples are given to ensure the product fits the application
- Unlike most competitors, Nason uses only elastomer diaphragm, snap action switch designs to provide positive action for critical applications



### VM Switch

Long life elastomer diaphragm  
High-quality snap action switch  
NEMA 4, 13  
NSF certified



### SM Switch

Long life elastomer diaphragm  
High-quality snap action switch  
Pneumatic and hydraulic applications  
NEMA 4, 13  
NSF certified