

# Solutions a measure of **Solutions** Success Solutions



## The Challenge

## Successful Solution

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*“Delta’s plunger switch is a well designed switch. You don’t have to be careful with it as water won’t build inside the switch. Also, when you actuate the switch, it doesn’t feel flimsy or breakable.”*

**Brack Craven,**

**Char-Broil Special Project Engineer**

Outdoor grills must withstand a variety of weather conditions--water, wind, extreme temperatures, salt, etc. A series of tests were ordered. First, Char-Broil developed the “sprinkler test,” which involved placing switches under three shower heads for 30 days. Each switch under consideration failed this test as water would seep into the switch and either short the switch resulting in a drained battery, or corrode the contacts, causing the switch to fail. not one of the switches would even pass phase one!



Char-Broil called on Delta for help. When they tested Delta’s plunger switch, it passed the “sprinkler test” with flying colors. The plunger’s self-purging feature pumped water out as it entered inside the switch. Char-Broil then sent the switch through several more tests such as impact tests, temperature tests, salt fog tests, and other environmental resistance tests. “As we were going through the process, we kept testing the switch under more stringent requirements,” says Brack Craven, special projects engineer as Char-Broil. Delta’s switch continued to pass each test.