Challenge:
A North Eastern USA Ductile Iron Pipe Manufacturer was looking for an alternative to their problematic swing check valves installed in their hydrostatic testing system. There were 4” and 6” valves being used to hold back flow and pressure for the testing of each length of pipe manufactured, as mandated by standards associated with pipe production.

The swing check valves were positioned in a sump area and mounted horizontally off a Roto Jet Pump. The swing checks were failing and needed constant maintenance due to hinge pin failure, which caused leakage. The failure mode was every 3 to 4 months. The process of each Pipe needing to be Hydro Tested with water, which was still hot from initial pipe forming, and the limited access to work on these valves, caused not only loss of production, but also a nasty and dangerous job for anyone on the shift that had to climb in the sump area.

Solution:
The DFT® model Excalibur® was a direct replacement. DFT® sized each valve to use as much as 1200 GPM, at 170 PSI pressure. This flow would only last till the pipe was filled but needed to be held for a few minutes, depending on size and thickness of each pipe produced. The Excalibur 4” and 6” 300# class were installed and performed for well over 4 years without failure.