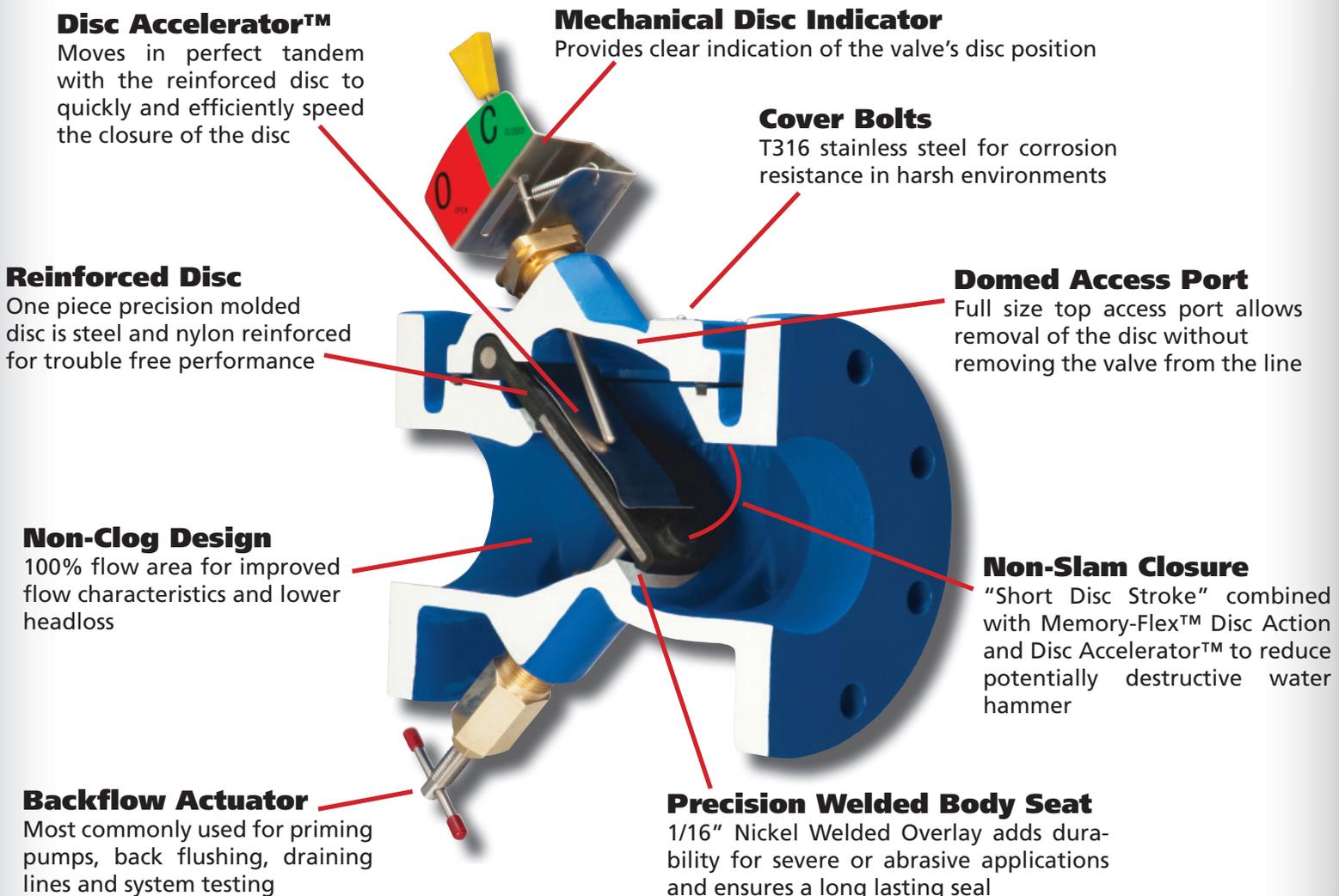


# VAL-MATIC®

## Surgebuster® NXT Check Valve with Nickel Welded Seat

The Surgebuster® NXT Check Valve is an excellent choice for water, wastewater slurries, sludge, and vertical flow up applications. The nickel welded seat is ideal for long life in severe and abrasive service.



## Product Scope

- Size Range: 2" - 48"
- Pressure Rating: 250 PSI
- 100% Flow Area
- Ductile Iron Construction
- Welded Nickel Seat
- Reinforced Memory-Flex™ Disc
- Disc Accelerator™
- Fusion Bonded Epoxy - Interior/Exterior
- AWWA C508 Certified
- NSF 61 and 372 Certified

# Innovative Design

Pumping applications with high head, surge tanks or multiple pumps have long proved to be a challenge for system operators trying to minimize line surges resulting from slamming check valves.

Only one real cause exists for slamming check valves -- reverse flow. The impact of the reverse flow is direct and proportional; the faster the reverse flow, the more violent the slam. If reverse flow through the check valve is allowed to develop, the reverse flow will slam the disc into the seat and create a loud water hammer or surge. Now system operators have discovered the solution...The Surgebuster® Check Valve.

## Optimum Performance

The Surgebuster® achieves rapid closure through a short disc stroke of 35° and adjustable Disc Accelerator™. The short disc stroke is less than half the typical 80° to 90° stroke of a conventional swing check valve. It is achieved by placing the valve seat on a 45° angle while maintaining a full flow area equal to that of the mating pipe (Figures 1 & 2).

The Disc Accelerator™ is a precision formed stainless steel mechanism that closes the valve disc rapidly thus avoiding slamming by flow reversal and allowing the disc to be stabilized under flow conditions. The accelerator is fully enclosed within the valve and completely out of the flow path (Figure 1).

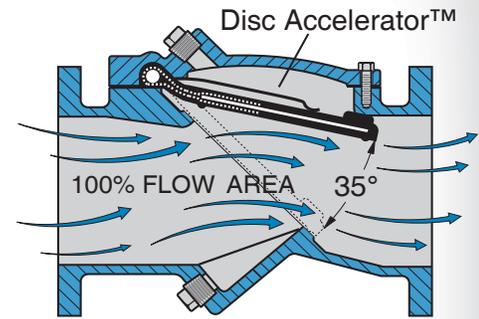


Figure 1. Val-Matic Surgebuster® Check Valve

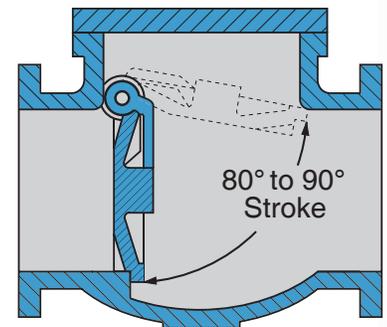


Figure 2. Conventional Swing Check Valve

# Applications

The Surgebuster® Check Valve is excellent in a number of applications, including high head, multiple pump and surge tank installations. The Surgebuster® is designed for the harshest environments and applications.

## Installations

- Pulp/Paper
- Sludge
- Potable Water
- Salt Water, Sea Water, Brine
- Raw and Screened Sewage
- Abrasive Slurries, Mining, Bottom Ash

## Applications

- High Head
- Multiple Pump
- High Pressure
- Cooling
- Irrigation
- Surge Mitigation
- Vertical Flow Up
- Fracking, Dewatering
- Surge Tank Installations



Crystal Springs Pump Station  
Roanoke, VA