Novatech™ Cast-N-Place™ Insert Valve

MADE IN USA

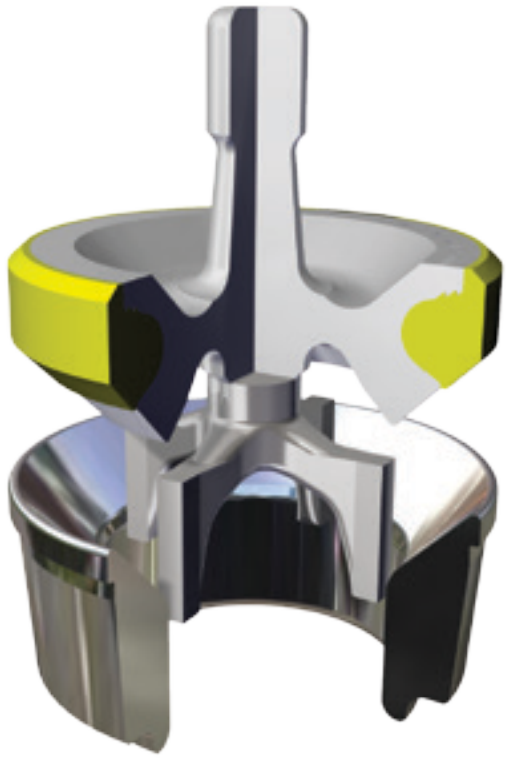
Novatech™ introduced its uniquely designed inserts to drilling valves which are now known as Cast-N-Place™. These valves have met with great success and are widely acclaimed by drilling contractors for their superior and reliable performance. Today, approximately 80% of Novatech™ drilling valves are manufactured with Cast-N- Place™ inserts.

The Novatech™ Cast-N-Place™ Valve uses a one-piece valve body proven stronger than valves with independent retainer plates. On one-piece valve bodies, the insert retention groove acts as a circular channel beam to add tremendous rigidity to the valve body. One-piece valve bodies are less expensive to manufacture than valves with independent retainer plates. Traditional one-piece valve bodies use Snap-On style inserts, therein lies the problem. Snap-On inserts never quite perfectly fit the insert groove because of machining tolerances, insert molding tolerances, and unpredictable heat treat warpage to the valve insert groove. As a result, the insert will torsionally twist in the groove as the valve opens and closes against the seat. This twisting in the groove actually pumps fluid around the backside of the insert. Eventually, a seal leak develops, and the insert washes out. This type of failure, which causes a wash to initiate between the bottom of the insert and the inside of the groove, is fairly common with Snap-On replaceable inserts. Additionally, replaceable inserts can allow mud debris to seep behind and in extreme cases force the insert completely off the valve body.

Cast-N-Place™ inserts solve the problem of traditional Snap-On inserts by molding the insert directly on the valve body. During the casting process, the urethane insert material is poured directly around the serrations, mirroring the shape of the serrations and the valve body groove. The insert is locked in place and cannot move, leak, or be forced from the groove!

Traditional Snap-On inserts are installed by stretching the insert over the valve, which adds hoop tensile stress to the insert. On valves with screw-on retainer plates, the insert is forced onto serrations on the top of the valve body flange. The serrations cut into the insert, which weakens or adds stress to the insert.

The Cast-N-Place™ process eliminates stress by molding the insert around the serrations. Also, the Cast-N-Place™ insert is molded into a true round position on the valve that assures quick sealing with the seat. Inserts can be forced out-of-round during installation by the screw-on retainer plate or a valve with an imperfect Snap-On insert or groove.



ACUMEN INTERNATIONAL

11500 Hwy 290 E Chappell Hill, Texas 77426
phone: 713-896-0050 email: sales@acumen.us.com

www.acumen.us.com