



Sales Inquiries Phone: 1 300 00 9893  
Sales Inquiries E-Mail: [sales@xtex.com.au](mailto:sales@xtex.com.au)

## **Drill Pipe Float Valve**

### **Product Overview**

**VALVE BODY:** Sigma valve bodies are manufactured to exacting standards in consideration of the increasingly harsh drilling environments that are now commonplace. Similarly to "L-80" grade oilfield casing, the Sigma ductile iron valve body is manufactured to address the corrosive (stress cracking) effects of hydrogen sulfide (H<sub>2</sub>S). A controlled yield manufacturing process ensures that the Sigma valve body hardness is consistently equal to or less than 22 Rockwell C (22 HRC). The QC of each production run is enhanced with independent testing, and confirms that the Sigma valve body is manufactured to a much tighter range of hardness than leading competitors. This means that customers receive a tougher and better performing drill pipe float valve. Other alloys, including stainless steel, are available from Sigma.

**ELASTOMERS:** Available elastomers are Nitrile Butadiene (NBR / Buna N), Hydrogenated Nitrile Butadiene (HNBR), and Viton (Fluoroelastomer / FKM).

**SPRINGS:** Sigma's standard spring is manufactured from corrosion resistant spring steel alloy. This material is suitable for a wider range of ambient well conditions and is significantly more resistant to corrosion when compared with the standard service springs provided by most other manufacturers. Inconel springs are available for sour gas (H<sub>2</sub>S) applications.

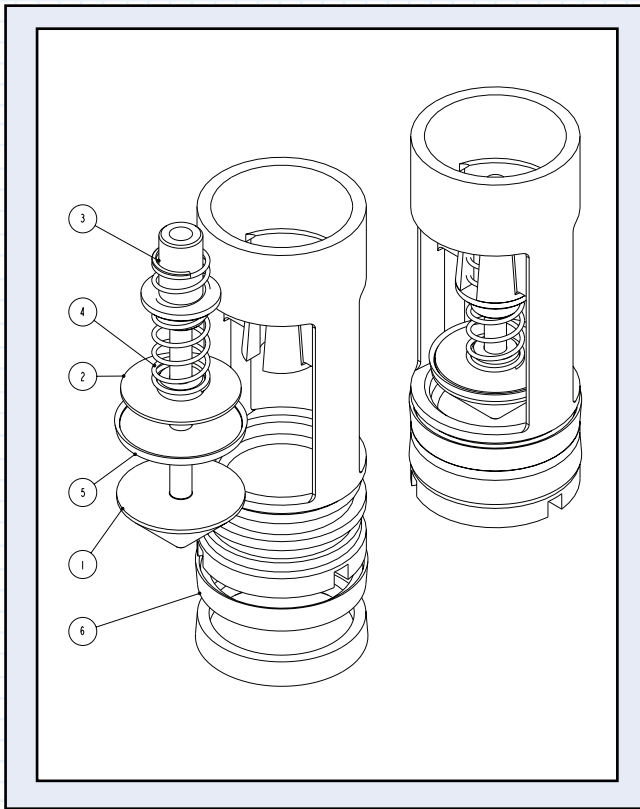
**COATING:** All metal parts (excl. springs) go through a two-step coating procedure. This process begins with a phosphate conversion coating followed by a second stage application of a patented (third party) fluoropolymer coating. This combination provides significant reduction in corrosion as well as increased lubricity, controlled metal-to-metal friction wear, and resistant for these metal parts.

**INTERCHANGABILITY:** All Sigma drill pipe float valves and replacement parts (repair kits) are manufactured to standard industry dimensions (specifications) and this are interchangeable with other major manufactures.

**SOUR GAS (H<sub>2</sub>S) SERVICE:** Available in both F and G models. See product catalogue, pages 8-10 for product numbers and configurations.

\* The information contained above and in the catalogue is intended to provide a product and usage overview. It is not intended to be used as an operational guide or as a substitute for safe drilling practices. Always refer to your Company's Engineering / Safety Departments with any questions regarding drilling and safety procedures.

**REPAIR KITS FOR ALL STYLE/TEMPERATURES OF MODEL F DRILL PIPE FLOAT VALES**

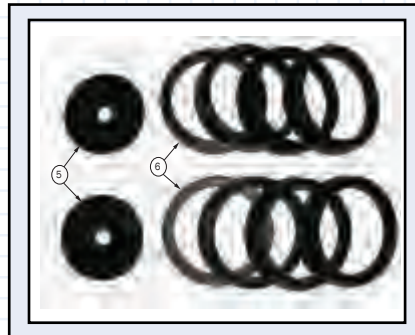


**Model F Metal Repair Kit (MRK)**



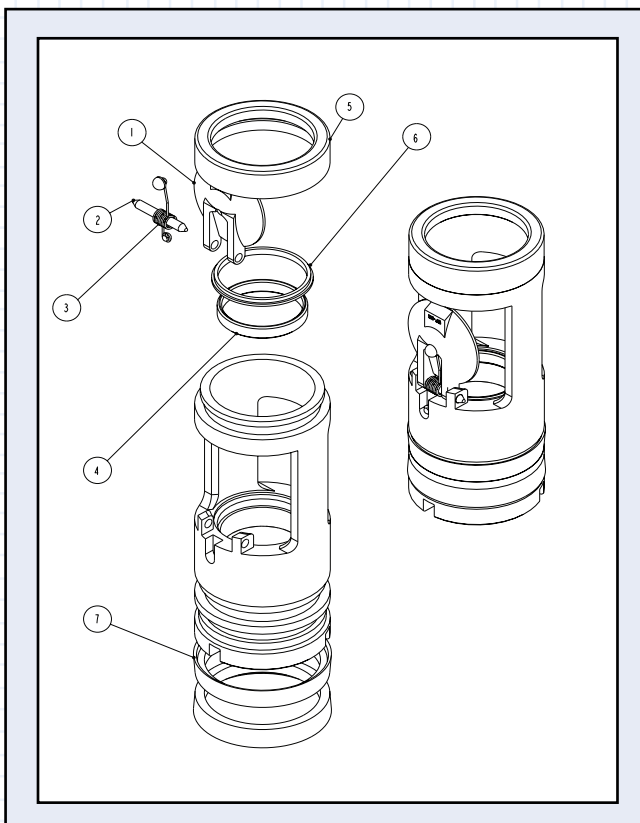
*MRK capable of 3 re-dressings*  
 (Item #) Item - Qty. in Kit  
 (#1) Plunger Valve - 1 pc.  
 (#2) Valve Seal Disk - 1 pc.  
 (#3) Valve Guide - 1 pc.  
 (#4) Valve Springs - 3 pcs.

**Model F Rubber Repair Kit (RRK)**



*RRK capable of 4 re-dressings*  
 (Item #) Item - Qty. in Kit  
 (#5) Valve Seals - 2 pcs.  
 (#6) Side Seals - 8 pcs.

**REPAIR KITS FOR ALL STYLE/TEMPERATURES OF MODEL G DRILL PIPE FLOAT VALES**

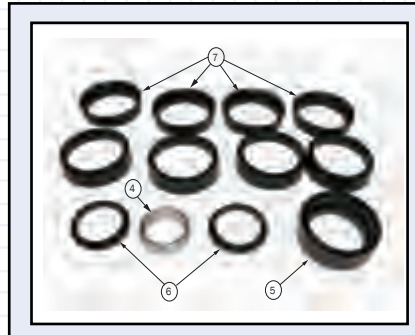


**Model G Metal Repair Kit (MRK)**



*MRK capable of 3 re-dressings*  
 (Item #) Item - Qty. in Kit  
 (#1) Flapper Valve - 1 pc.  
 (#2) Hinge Pins - 3 pcs.  
 (#3) Spring/Bumper Assemblies - 3 pcs.  
 (#4) Seal Retaining Ring - 1 pc.

**Model G Rubber Repair Kit (RRK)**



*RRK capable of 4 re-dressings*  
 (Item #) Item - Qty. in Kit  
 (#4) Seal Retaining Ring - 1 pc.  
 (#5) Shock Absorber - 1 pc.  
 (#6) Valve Seals - 2 pcs.  
 (#7) Side Seals - 8 pcs.