



DrillmaxPro[®]

Model 10K Float Valves*





Performance.

Reliability.

Availability.

We are a leading manufacturer of drill pipe float valves, gate valves, and shear relief valves. Our valves are used across the globe for onshore and offshore drilling of wells in the oil and gas, water well, air drilling and commercial utility H.D.D. industries.

Since 1996, the company has grown organically through a commitment to produce superior valves that are durable and perform consistently in harsh drilling conditions. As a trusted source for reliable valves, our production methods conform to quality processes, policies, and procedures.

The foundation of our business is built on the four pillars of quality, performance, reliability and availability. Our management team and dedicated employees make safety, quality, and environmental standards a priority. We understand harsh conditions place stress on drilling equipment and you can count

on us to deliver products that meet strict QA/QC verification to protect people and the environment.

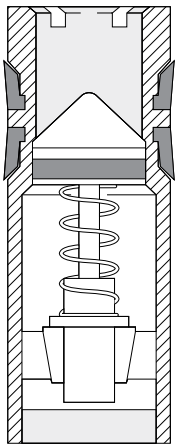
Our drill pipe float valve, the "Blue Valve," is our main product. Building upon the solid reputation of our float valve, we have developed the new DrillmaxPro® series to meet the industry demand for drilling high-pressure, high-temperature (HPHT) wells. Our DrillmaxPro® float valve can safely handle differential pressures up to 10,000 psi.

We have grown and evolved over the years, and our updated look reflects the quality, energy, and forward-looking culture of Drillmax®. Our new headquarters and modern 10,000 SF production facility is located in Houston Texas. We strive to exceed our customer's expectations with product availability, technical support assistance, and customer care sales support from ordering to delivery.

DrillmaxPro®

Model 10K F Plunger Type Valve*

The Model 10K F is a plunger type float valve that is part of the new DrillmaxPro® Series from Drillmax®. This valve is designed to handle the higher pressures associated with running drill pipe further and deeper - it can handle up to 10,000 PSI differential pressure. The Model 10K F is supplied automatically for H2S and 400°F service.



* The unique design features a more robust cage and internal parts, to effectively handle new higher-pressure environments.

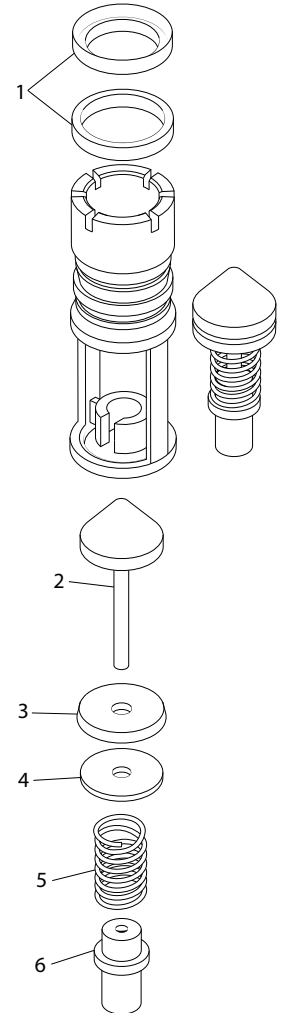
The 10K F provides all the features of our proven Model F Float Valve. It allows

constant fluid flow while drilling, yet provides an instant shut-off if the flow stops or is reversed. The (plunger) piston type valve stops back flow when breaking connections and keeps cuttings out of the drill string to help prevent clogged bits. The valve assembly also acts to assist Blow Out Prevention (BOP) equipment in maintaining control over pressure in the line.

MODEL 10K F PARTS DESCRIPTION & MATERIAL

Model 10K F Drillmax Float Valve - H2S / HT400 Viton®

Ref	Description & Material
1	Side Seal <i>Viton</i>
2	Valve Plunger <i>Steel</i>
3	Valve Seal <i>Viton</i>
4	Valve Seal Disc <i>Steel</i>
5	Valve Spring <i>Inconel® 750</i>
6	Valve Guide <i>Steel</i>



* Patent Pending

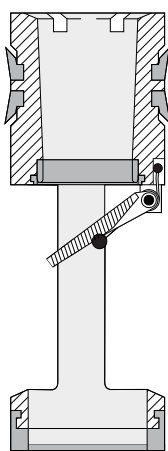
MODEL 10K F PART NUMBERS

Model 10K F Plunger Type H2S/HT400 Viton®							
Size	Brand	Float Valve		Rubber Repair Kit		Metal Repair Kit	
		Part Number	WT (lbs)	Part Number	WT (lbs)	Part Number	WT (lbs)
2F3R	DrillmaxPro®	10K3020432V	2.74	10K0810901SV	0.16	10K0850101S	0.82
3½ IF	DrillmaxPro®	10K3030600V	7.65	10K0820101SV	0.3	10K0850301S	1.43
4R	DrillmaxPro®	10K3040200V	7.90	10K0820201SV	0.3	10K0850401S	2.07
5R	DrillmaxPro®	10K3050200V	11.66	10K0820401SV	0.34	10K0850601S	3.02
5F6R	DrillmaxPro®	10K3050462V	18.67	10K0820501SV	0.62	10K0850701S	4.99

Model 10K G Flapper Type Valve*

The Model 10K G is a flapper type float valve that is part of the new DrillmaxPro® Series from Drillmax®. This valve is engineered to handle the pressures associated with running drill pipe further and deeper - it can handle up to 10,000 PSI differential pressure. The Model 10K G is supplied automatically for H2S and 400°F service.

The new design features a more robust cage and internal parts, to more effectively



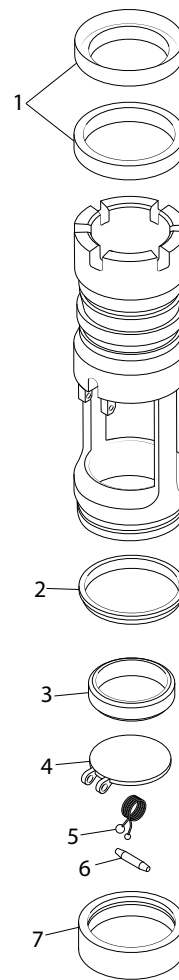
* handle higher-pressure environments. The Model 10K G offers unobstructed flow through the valve. It is designed for abrasive drilling fluids. The more robust flapper closes to prevent cuttings from entering the drill string when flow stops or is

reversed. The valve acts to assist BOP equipment in maintaining control over pressure in the line. The Model 10K G features an investment cast flapper that is quick opening, allowing for full flow through the valve. It opens when the drill string is raised allowing the drilling fluid to drain back into the wellbore instead of spilling onto the rig of floor.

MODEL 10K G PARTS DESCRIPTION & MATERIAL

Model 10K G Drillmax Float Valve - H2S / HT400 Viton®

Ref	Description & Material
1	Side Seal <i>Viton</i>
2	Valve Seal <i>Viton</i>
3	Seal Retaining Ring <i>Steel</i>
4	Flapper <i>Steel</i>
5	Spring Assembly <i>Inconel® 750</i>
6	Pin <i>Viton</i>
7	Shock Absorber <i>Viton</i>



* Patent Pending

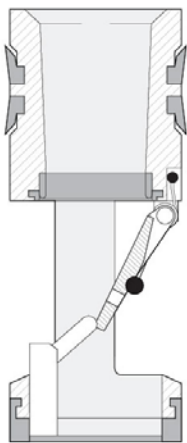
MODEL 10K G PART NUMBERS

Model 10K G Full Flow Flapper Type H2S/HT400 Viton®							
Size	Brand	Float Valve		Rubber Repair Kit		Metal Repair Kit	
		Part Number	WT (lbs)	Part Number	WT (lbs)	Part Number	WT (lbs)
2F3R	DrillmaxPro®	10K3120432V	3.21	10K0820701SV	0.27	10K0850901SV	0.34
3½ IF	DrillmaxPro®	10K3130500V	7.72	10K0820851SV	0.45	10K0870001SV	0.43
4R	DrillmaxPro®	10K3140200V	7.95	10K0820901SV	0.57	10K0860101SV	0.6
5R	DrillmaxPro®	10K3150200V	11.37	10K0830101SV	0.59	10K0860301SV	0.95
5F6R	DrillmaxPro®	10K3150462V	19.33	10K0830201SV	1.19	10K0860401SV	1.51

Model 10K GC Flapper Type Valve*

The Model 10K GC is a flapper type float valve that is part of the new DrillmaxPro® Series from Drillmax®. This valve is engineered to handle the pressures associated with running drill pipe further and deeper - it can handle up to 10,000 PSI differential pressure. The Model 10K GC is supplied automatically for H2S and 400°F service.

The new design features a more robust cage and internal parts, to more effectively handle higher-pressure environments. The Model 10K GC offers unobstructed flow through the valve. It is designed for abrasive drilling fluids. The more robust flapper closes to prevent cuttings from



* entering the drill string when flow stops or is reversed. The valve acts to assist BOP equipment in maintaining control over pressure in the line. The Model 10K GC features an investment cast flapper that is quick opening, allowing for full flow through the

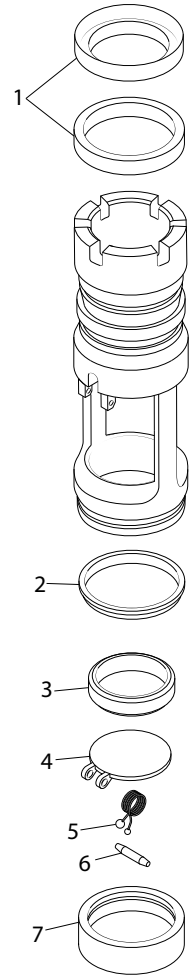
valve. It opens when the drill string is raised allowing the drilling fluid to drain back into the wellbore instead of spilling onto the rig of floor.

The Model 10K GC is two valves in one. When tripping into the wellbore the open flapper allows quick descent, and bottom “auto filling” of the drillstring, protecting the string and formation from pressure surges. After reaching bottom of the wellbore the pumps are started which frees the flapper to close the next time the pumps stop, and the valve is now checking the backflow, as a Model 10K G.

MODEL 10K GC PARTS DESCRIPTION & MATERIAL

Model 10K GC Drillmax Float Valve - H2S / HT400 Viton®

Ref	Description & Material
1	Side Seal <i>Viton</i>
2	Valve Seal <i>Viton</i>
3	Seal Retaining Ring <i>Steel</i>
4	Flapper <i>Steel</i>
5	Spring Assembly <i>Inconel® 750</i>
6	Pin <i>Viton</i>
7	Shock Absorber <i>Viton</i>



* Patent Pending

MODEL 10K GC PART NUMBERS

Model 10K GC Full Flow Flapper Type with Auto Fill H2S/HT400 Viton®							
Size	Brand	Float Valve		Rubber Repair Kit		Metal Repair Kit	
		Part Number	WT (lbs)	Part Number	WT (lbs)	Part Number	WT (lbs)
2F3R	DrillmaxPro®	10K3320432V	3.31	10K0820701SV	0.27	10K0850901SV	0.34
3½ IF	DrillmaxPro®	10K3330500V	7.82	10K0820851SV	0.45	10K0870001SV	0.43
4R	DrillmaxPro®	10K3340200V	7.15	10K0820901SV	0.57	10K0860101SV	0.6
5R	DrillmaxPro®	10K3350200V	11.47	10K0830101SV	0.59	10K0860301SV	0.95
5F6R	DrillmaxPro®	10K3350462V	19.43	10K0830201SV	1.19	10K0860401SV	1.51

Drillmax® Drill Pipe Float Valves

SIZING GUIDE



Tool Joint Types	Drill Pipe Float Valve Sizes				
	2F3R	3½ IF	4R	5R	5F 6R
API Regular	3½		4½	5½ - 5⅝*	6⅝ - 7⅝‡
Hughes or Reed Acme Regular	3½		4½	5½ - 5⅝	6⅝
Union Tool				5½ - 5⅝*	6⅝‡
Hughes or Reed Double Streamline	3½			5½ - 5⅝*	
API Full Hole	2⅞	4	4½		
Reed Acme Full Hole					5½ - 5⅝*
Hughes Acme Streamline	2⅞				5½ - 5⅝*
Hughes Xtra Hole	2⅞			5	5½ - 5⅝*
Reed Semi-Internal Flush	2⅞			5	
API Internal Flush	2⅞	3½		4½*	
Hydril Type "IF" (Int. Flush Ext. Upset)	2⅞*			4½	5
Hydril "EIU" (Ext. Int. Upset)			4		5½ - 5⅝*
Hydril Type "F" (External Flush)			5½ - 5⅝	6⅝	
Hughes Ext. Flush Acme Type	4½		5½ - 5⅝	6⅝	
Hughes Ext. Flush Full Hole Type					

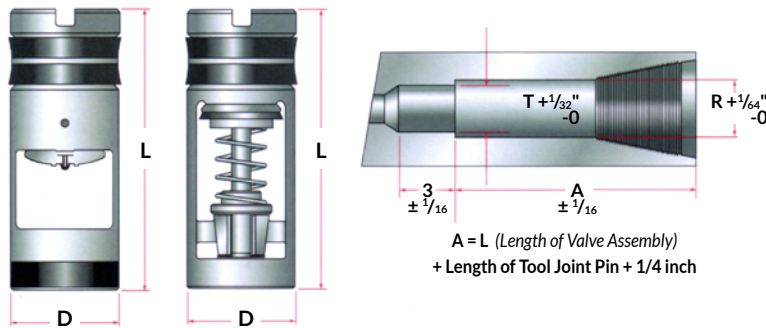
Dimensions shown in inches

* Float sub in these sizes has smaller Internal Diameter (ID) than standard tool joint.

‡ Interchangeable

Drill Pipe Float Valve Dimensional Data

Model G I.D. of Valve	Model F I.D. of Valve	Size of Valve	D Diameter of Valve (Inches)	R (D + 1/32) Diameter of Recess for Valve (Inches)	L Length of Valve (Inches)	T* Diameter of Recess for Baffle Plate (Inches)
1¼	1⅞	2F3R	2 ¹³ / ₃₂	2 ⁷ / ₁₆	6½	1 ²⁹ / ₃₂
1⅝	1⅞	3½ IF	3 ¹ / ₈	3 ⁵ / ₃₂	10	2 ¹¹ / ₁₆
1 ³¹ / ₃₂	2 ⁵ / ₁₆	4R	3 ¹⁵ / ₃₂	3½	8 ⁵ / ₁₆	2 ¹⁵ / ₁₆
2¼	2¾	5R	3 ⁷ / ₈	3 ²⁹ / ₃₂	9¾	3 ³ / ₈
2 ⁷ / ₈	3¼	5F6R	4 ²⁵ / ₃₂	4 ¹³ / ₁₆	11¾	4 ⁹ / ₃₂



Bit and Shank Sizes

Bit Size (inches)	3¼	3⅝	4½	4¾	5½	6	6⅞	6¾	6½	6¾	7⅞	8¾
Standard API Pin Shank Size (inches)	2⅝	2⅝	2⅝	2⅞	3½	3½	3½	3½	3½	3½	4½	4½

Bit Size (inches)	8½	8¾	9½	9¾	10½	11	12¼	13½	14¾	17½	20	24	25
Standard API Pin Shank Size (inches)	4½	4½	6⅝	6⅝	6⅝	6⅝	6⅝	6⅝	7⅝	7⅝	7⅝	7⅝	7⅝

Drill Pipe Float Valve Subs*

API Regular Threads - Box or Pin

Thread Size and Type	Outside Diameter (O.D.)	Inside Diameter (I.D.)	Length	Float Valve Size
3½	4¾	1½	20	2F3R
4½	5½	2¼	24	4R
5½	6¾	2¾	28	5R
6⅝	7¾	3½	30	5F6R
7⅝	8¾	4	30	5F6R

API Full Hole - Box or Pin

Thread Size and Type	Outside Diameter (O.D.)	Inside Diameter (I.D.)	Length	Float Valve Size
2⅞	4¾	2⅞	20	2F3R
4	5¾	2 ¹³ / ₁₆	24	3½ IF
5½	7	4	30	5F6R

API Internal Flush (IF) - Box or Pin

Thread Size and Type	Outside Diameter (O.D.)	Inside Diameter (I.D.)	Length	Float Valve Size
2 ⅞	4 ⅞	2 ⅞	20	2F3R
3 ½	4 ¾	2 11/16	24	3 ½ IF
4 ½	6 3/8	3 ¾	28	5R
5 ½	7 3/8	4 13/16	30	5F6R

* Sub dimensions shown in inches (For reference only.)

DRILLMAX®

Performance.

Reliability.

Availability.

Drillmax is a premier manufacturer of drill pipe float valves, gate valves, and shear relief valves. Since 1996, the company has grown organically, through a commitment to produce quality products and deliver on performance, reliability, and availability to customers in the oil and gas, water well, and air drilling industries.

www.drillmax.com

DMP-071321



Performance Delivered.

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