

MUD KING PRODUCTS GATE VALVES

PRODUCT DESCRIPTION

The **Mud King** DM & Model 72 style Gate Valves, with superior design features precision workmanship and a proven principle are engineered to meet the harsh drilling requirements in today's oilfield.

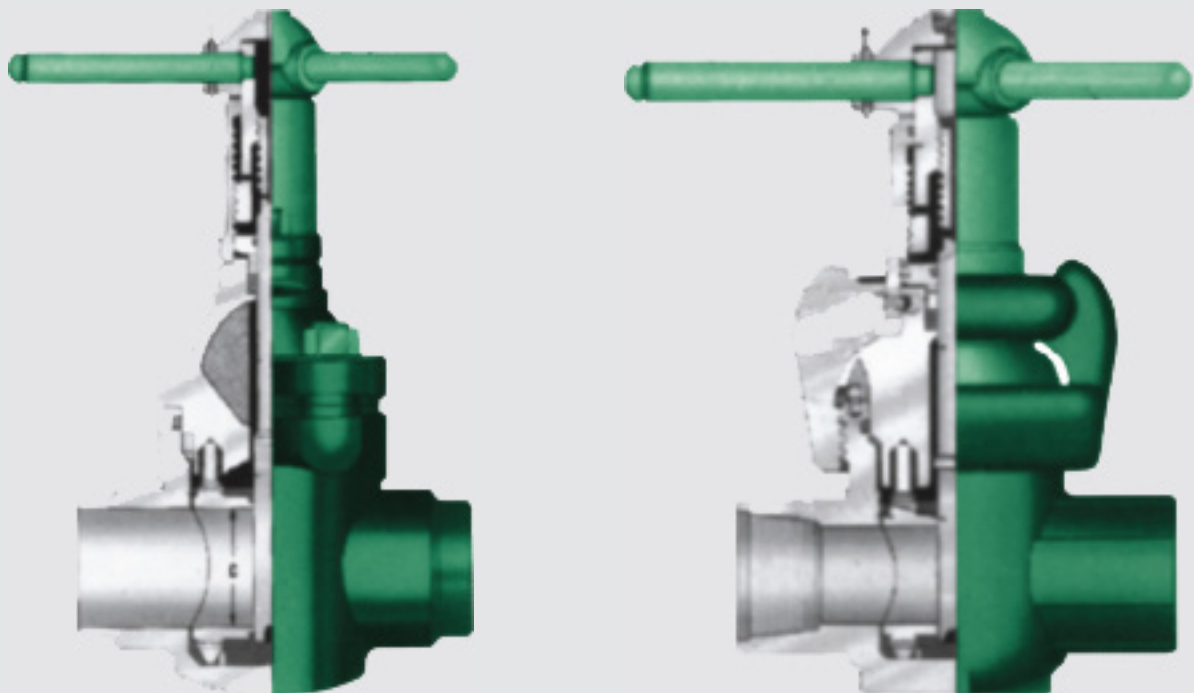
The **MKP Valve** conforms to the standard flange dimensions and pressure rating of 5000 and 7500 PSI working pressure, and temperature service up to 400°F

CONSTRUCTION

MKP Valves conform to API flange dimensions in all pressure class ratings. The valves have rising stems that are driven by a double threaded hub for quick opening and closing with minimum turning effort. The permanently lubricated stems and stem screws are fully sealed assembly consisting of homogenous and fabric backed rings for high and low pressure sealings.

APPLICATION FOR THE GATE VALVE

Mud pump lines and standpipe manifolds, oil and gas pipelines, sour gas and crude oil, corrosive water flood lines, cementing services, wellheads, and well treating chemicals.



APPLICATION

- ⇒ Drilling and well-treating chemicals
- ⇒ Sour gas and crude oil
- ⇒ Abrasive drilling mud
- ⇒ Pipelines and manifolds
- ⇒ Wellheads
- ⇒ Water, oil, and gas lines
- ⇒ Cements and slurries
- ⇒ Corrosive water flood lines
- ⇒ Up to 7500 psi and 400° Fahrenheit services

SEAT ELASTOMERS

Buna N (nitrile) is the basic seat elastomer. It is excellent for petroleum oil and gases, fuel oils and alcohols from -10° F to +200°F. **Hypalon** is optionally offered compounded for maximum chemical resistance. Particularly suited for oxidizing acids, it resists hydrocarbon oils and fuels from -10° F to +250° F. Viton is highly resistant to mineral acids and hydrocarbons and resists moderate concentrations of hydrogen sulphide. Serviceable from -10° F to +400° F (Not suitable for steam).

PLASTIC COATINGS

Internally plastic-coated valve bodies and bonnet are available on request.

TESTING

MKP Gate Valves are hydrostatically tested at assembly. Stem seal, body, and seat are inspected for zero leakage under pressure, before acceptance.

PRESSURE RATINGS

MKP Gate Valves are designed for the maximum working pressure and test pressure tabulated below:

5000	7500
5000 WP	7500 WP
7500 PSI Test	11,250 PSI Test

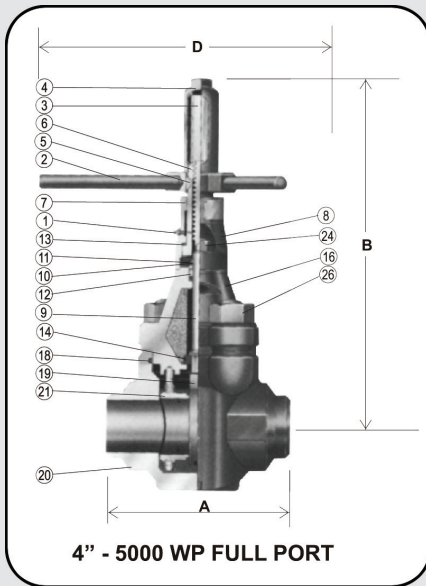
Gate Valve rating must be selected to match the piping system in which the valve will be installed. Tabulated below are working pressures at 100° F for ASTM A-106 Grade B pipe in sizes corresponding to MKP gate valves.

SIZE	SCH. 40	SCH. 80	SCH. 160	X X H
2"	1210	2220	4300	5970
3"	1460	2370	3930	5880
4"	1300	2130	3830	5150
5"	*****	1970	3730	4650
6"	1110	1970	3650	4724

ORDERING INFORMATION

Give size, pressure class, and end connection. Specify pressure class of flanged ends and raised face or RTJ. For threaded ends, give line pipe, NUE (non upset tubing) or EUE (external upset tubing). For weld or grooved ends, give schedule of mating pipe.

MKP GATE VALVES ARE MANUFACTURED UNDER AUTHORIZED API LICENSED MANUFACTURING PLANT



BASE PART NO.

M XXXX – X X X X X X X

END CONN Screwed 0 – LP 1– NUE
 Weld 1 – Sch. 80 2 – XXH 5 – Sch. 160
 Flanged 2 – 5000 RTJ
 BODY CONFIG 4-Screwed 5-Weld 7-Flanged
 STEM MATL. 2-303SS 8-316SS
 GATE MATL. 1-Steel 8-316SS
 INSERT 1-Steel 8-316SS
 SEAT 1-Buna N 2-Viton
 COAT G 0 Uncoated
 1 MUDKING 10

PRESSURE RATING	5000 PSI	
TEST PRESSURE	7,500 PSI	
SIZE	4" Screwed Weld Flanged	5" x 4" Screwed Weld

DIMENSIONS, INCHES

A	END TO END	Screwed & Weld 13 Flanged - RTJ 18	13
B	OPEN HEIGHT	24 ⁵ / ₈	
C	SEAT BORE	4	
D	HANDLE DIAMETER	22 ³ / ₄	
F	FLANGE DIAMETER	12 ¹ / ₄	-
	FLANGE BOLTS	8-1 ¹ / ₄	-
	RTJ RING NUMBER	R39	-

STANDARD ASSEMBLIES & WEIGHTS

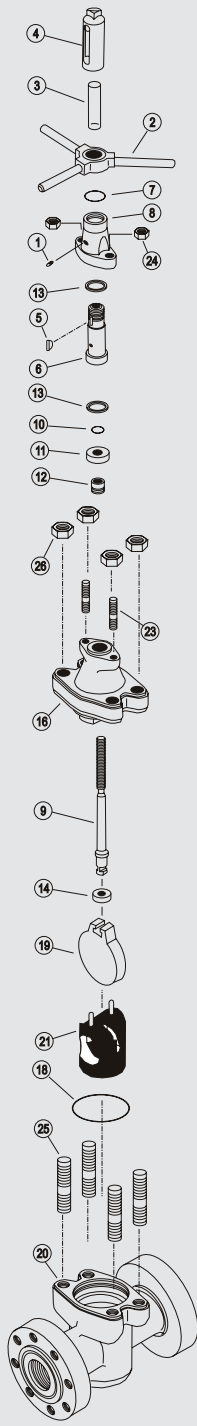
STANDARD MATERIALS: Cast Steel Body & Bonnet; Buna N Seat & Seals; Duct Iron Seat Inserts; 316 SS Stem; Steel Gets		
FULL PORT		4"
FIGURE NUMBER		4 - 5000
SCREWED END	Base Part No.	M7420
	Weight, Lbs.	210
WELD END	Base Part No.	M7420
	Weight, Lbs.	210
RTJ FLANGED END	Base Part No.	M17263
		RTJ flanges comply with API Std. 6A, 1974
	Weight, Lbs.	330

REGULAR PORT		5" x 4"
		5-5000R
WELD END	Base Part No.	M7421
	Weight, Lbs.	210

GATE VALVE

DM PARTS LIST

4", 5" x 4" – 5000 WP



5000 WP

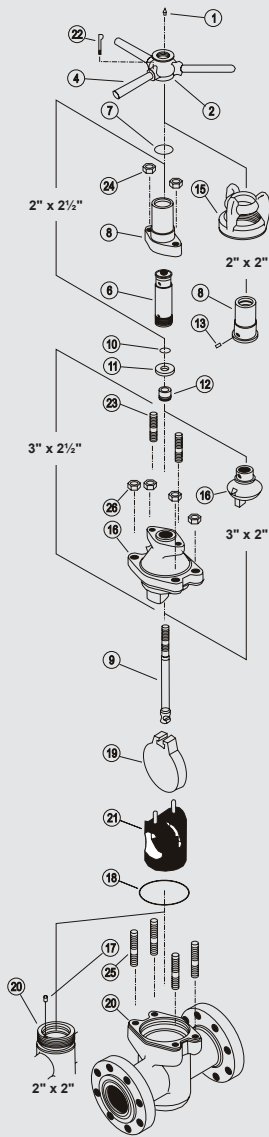
REF.	DESCRIPTION	SIZE	4" 5" x 4"
1	LUBE FITTING	Steel	M5195
2	HANDLE ASSEMBLY	Steel	M7414
		Wt. Lbs.	10.1
3	TUBE	Clear Acrylic	M7459
4	STEM CAP	Ductile Iron	M7411
5	KEY	Steel	M5305-10016
6	STEM SCREW	Steel	M7416
7	STEM SCREW SEAL	Buna N	M5526-226
8	SCREW HOUSING	Steel	M7418
9	STEM	303 SS - 002	M7439-xxx
		316 SS - 008	
10	SECONDARY SEAL	Buna N	M5526-214
11	RETAINER	Steel	M7413
12	STEM SEAL ASSEMBLY (Includes Bronze Bushing)	Buna N - 001	M1951-xxx
		Viton - 006	
13	BEARING (2)	Teflon/Phenolic	M7426
14	DOWN STOP RING	303 SS	M7417
16	BONNET - 4" SCREWED & WELD END & 5" x 4" WELD END VALVES	Uncoated - xx0	M7419-03x
		Coated MUD KING 10 - xx1	
18	BONNET SEAL	Buna N # 5520	M xxxx-439
		Viton # 5531	
19	GATE	Steel, Nickel Plated - 002	M1926-xxx
		316 SS - 008	
		Wt. Lbs. 9.0	

5000 WP

REF.	DESCRIPTION	SIZE	4" 5" x 4"
20	BODY UNCOATED	FULL PORT - SCREWED LP	M1246-030
		- NUE	M1996-130
		WELD -SCH. 80 -1xx	M1288-x30
		SCH xxH -2xx	
		- SCH 160 -5xx	
		FLANGED-RTJ	M17288-230
		REG. PORT - WELD 5" - Sch. 80 -1xx	M1249-x30
		- Sch.xxH -2xx	
		- Sch.160 -5xx	
		REG. PORT - WELD 6" - Sch. 80 -1xx	M17287x30
- Sch. xxH -2xx			
- Sch. 150 -5xx			
	BODY COATING MUD KING 10	M xxxx-xx1	
21	SEAT	Steel Buna N -021	M2207-xxx
		Viton -022	
		Hypalon -023	
		Viton -032	
		Hypalon -033	
		315 SS Buna N -081	
		Viton -082	
		Hypalon -083	
	Wt. Lbs. 6.0		
23	BONNET STUD (2)		M2072
24	BONNET STUD NUT (2)		M53251-036
25	BODY STUD (4) -4 SCREWED WELD END & 5" x 4" WELD END VALVES		M2077
		BODY STUD (4) -4" FLANGED END &	M15432
26	BODY STUD NUT (4) -4 SCREWED & WELD END & 5" x 4" WELD END VALVES		M1890
		BODY STUD NUT (12) -4" FLANGED END &	M53251-038

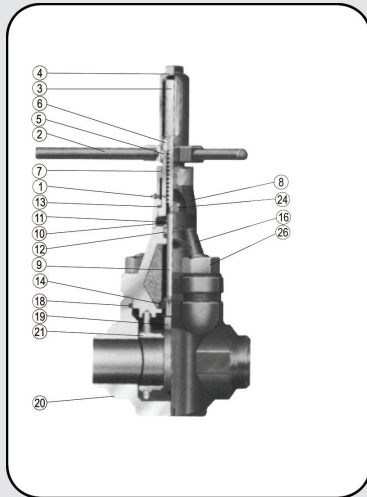
Caution: Test valve assembly, including replacement body, before installation and use.
Failure to do so may result in leakage or property damage or personal injury.

DM PART LIST 2" & 3" – 5000 WP



REF.	DESCRIPTION	SIZE	5000 WP	
			2" 2½" x 2"	3" 4" x 3"
1	LUBE FITTING	Steel	M5195	
2	HUB ASSEMBLY	Steel	M14687	M14688
4	LOCK HANDLE	Steel	M1891	M1892
6	STEM SCREW	Steel	M1913	M1914-003
7	STEM SCREW SEAL	Buna N	M5526-224	M5526-226
8	STEM HOUSING	Steel	M1848	M1852
9	STEM	303 SS -002 316 SS -008	M1931-xxx	M1932-xxx
10	SECONDARY SEAL	Buna N	M5526-210	M5526-212
11	RETAINER	Steel	M1940	M1941
12	STEM SEAL ASSEMBLY (Includes Bronze Bushing)	Buna N -001 Viton -006	M1949-xxx	M1950-xxx
13	LOCK SCREW	Steel	M5665-22004	****
15	COUPLING		M1445-030	****
16	BONNET, UNCOATED	Coated MUDKING -10	M1237-02X	M1980-03X
17	INDED	Steel	M1981	****
18	BONNET SEAL	Buna N #5526 Viton #5531	Mxxx-342	Mxxx-433
19	GATE	Steel, Nickel Plated -002 Aluminum Bronze -004 316 SS -008	M1887-xxx	M1886-xxx
		Weight Lbs.	2.2	4.9
20	BODY UNCOATED			
	FULL PORT -SCRD -LP		M1271-030	M1987-030
	-NUE		****	M1995-130
	-WED -Sch. 80 -1xx			
	-Sch. xxH -2xx		M1309-X30	M1266-X30
	-Sch. 180 -5xx			
	-Grooved -Sch. 80		****	****
	-FLANGED-RTJ		M1510-230	M1511-230
	REG. PORT -WED -Sch. 80 -1xx			
	-Sch. xxh -2xx		M1273-x30	M1267-x30
	-Sch. 180 -5xx			
	BODY COATING			
21	SEAT		M1876-xxx	M1878-xxx
		Ductile Iron	Buna N-011, Viton -012, Hypalon -013	
	4th BORE ONLY	Steel	Buna N-021, Viton -022, Hypalon -023	
		Aluminum Bronze	Buna N-041, Viton -042, Hypalon -043	
		316SS	Buna N-081, Viton -082, Hypalon -083	
		Weight Lbs.	1.5	3.0
22	PIN. LOCK HANDLE	Steel	M5420-18728	M5420-18732
23	BONNET STUD (2)		****	M2066
24	BONNET STUD NUT (2)	A194 Gr. 2H Steel	****	M53251-034
25	BODY STUD (4)		****	M2076
26	BODY STUD (4)	A194 Gr. 2H Steel	****	M53251-144

Caution: Test valve assembly, including replacement body, before installation and use.
Failure to do so may result in leakage or property damage or personal injury.



**BASE
PART NO.**

M XXXXX – X X X X X X

2 - 2 XXH

4 - 4 XXH

3 - 5 XXH

END CONN

BODY 5 - Weld

STEM MATL. 7 - 410 SS 8 - 17-4 PH SS

GATE MATL. 2 - Steel/Steel 7 - 410 SS/410 SS

8 - 17-4 PH SS/410 SS

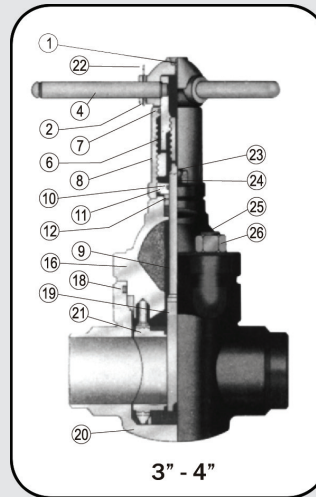
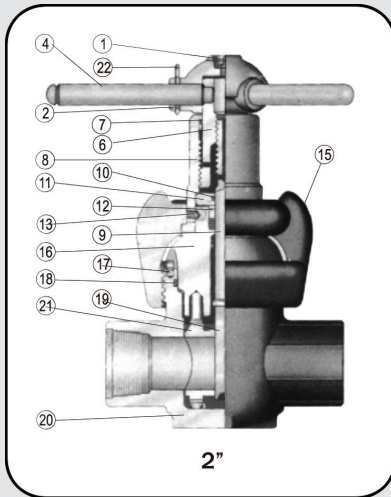
SEAT RING MATL. 1 - 410 SS

SEAT 2 - Viton/Viton 4 - HNBR/HNBR

PRESSURE RATING	7,500 PSI
TEST PRESSURE	11,250 PSI

ITEM	DESCRIPTION	TYPE	2"	4" x 3"	5" x 4"
	BASE PART NUMBER	WELD	M25196	M25051	M25100
1	LUBE FITTING		M5195	M5195	M5195
2	HANDLE		M2139712-01	M2139481-01	M15334
3	STEM TUBE		--	M7459	M12852
4	STEM CAP		--	M7411	M15855
5	KEY		--	M5305-10016	--
6	STEM SCREW		M1913	M7416	M23888
7	HOUSING SEAL		M5526-224	M5526-226	M5526-228
8	HOUSING		M24982	M7418	M15332
9	STEM	410 SS	M24983-107	M24951-107	M2140684-01
10	SECONDARY SEAL	HNBR	M2712425-13	M2712425-01	M2726268-01
11	PAKING RETAINER		M1940	M7413	M15330
12	STEM SEAL ASSY (C/W BRONZE BUSHING)	HNBR	M23231-008	M1951-008	M15853-008
13	BEARING		--	M7426	--
14	GATE CLIP		M450480	M450505	M450505
15	WEAR RING	NITRIDE	M2269414-01	M452571	M452290
16	BONNET		M24985-030	M17289-029	M2172523-01
17	WEAR RING SEAL	VITON	M2712425-18	M5521-340	M5521-349
18	BONNET SEAL	HNBR	M2712425-60	M2712787-07	M2712426-11
19	GATE	NITRIDE	2269412-01	M2171112-01	M2171267-01
20	BODY		--	--	--
21	SEAT	HNBR	2269403-01	M2139744-01	M2139746-01
22	COTTER PIN		--	--	--
23	HOUSING STUD		M2066	M2072	--
24	HOUSING NUT		M2709000-08-01	M2709000-09-01	--
25	BODY STUD		M15432	M15432	M2171976-11-01
26	BODY NUT		M2709000-10-01	M2709000-10-01	M2709000-11-01

DM REBUILD INSTRUCTION 2", 3" - 5000 WP



DISASSEMBLY

MUD KING GATE VALVES for high pressure service are readily dis-assembled and reassembled without removing the body from the line. Inspection and repair may be accomplished in a short time, to restore the valve to full operation efficiency.

Release all pressure from the line in which the valve is installed. If downstream from another, closed valve under pressure, that valve should be locked or sealed and tagged to prevent opening while this work is being done.

1. Fully open the gate valve. Remove nuts (26) (unscrew coupling (15) on 2" valves) and withdraw the bonnet assembly from the body. Collapse the seat (21), by compressing the insert pins together, and remove it from the body.
2. With the bonnet assembly on its side, remove pin (22) and lock handle (4) then lift off hub (2). Remove coupling (15) on 2" valves. Turn stem screw (6) clockwise to bottom, then withdraw gate (19) from stem (9) by rotating a quarter turn and sliding it off the tee-head of the stem.
3. Seat or gate replacement maybe made at this point. To reassemble the valve, proceed from reassembly instruction 3. If it is desired to inspect other parts, the following instruction apply.
4. Turn the stem clockwise, until it disengages from stem screw (6) and withdraw it from underside of the bonnet. Unscrew the lock screw (13) on 2" valves or nuts (24) on other sizes and lift screw housing (8) off the bonnet.

Remove retainer (11), o-ring seal (10) and stem seal assembly (12) from the bonnet. Turn stem screw (6) clockwise out of the screw housing. Remove screw seal (7) from the screw housing and bonnet seal (18) from the valve body.

Thoroughly clean all parts and inspect them for wear or damage. It is recommended that seals (7); (10), (18) and stem seal assembly (12) be replaced if they are worn or cut. Inspect the outside surface of the stem, where it passes through the packing, for nicks or scratches and smooth with emery cloth if necessary. Before reassembling, apply a good grade of general purpose grease to all threads, seal rings and exterior of the seat and on the surfaces of the bonnet, stem and stem screw which are in contact with seals.

REASSEMBLY

1. Slide the threaded end of the stem through the bonnet bore, from the underside, and place the stem seal assembly consists of the seal rings, a flat-backed follower ring and a bushing, which are placed over the end of the stem in that order. Slide the retainer (11), with o-ring seal (10) inside, beveled side first, over the stem. Seat the stem seal assembly into its counterbore in the bonnet.
2. Engage the stem screw (6) in the screw housing (8) about half its total travel and place the screw housing on the bonnet and stem. Replace lock screw (13) on 2" valves or nuts (24) on other sizes. Place the coupling on the screw housing of 2" valves.

3. Rotate the stem screw clockwise until it bottoms on the retainer, then back it up approximately one-eighth turn. Engage the gate on the tee-head of the stem and turn them together, counter-clockwise, until the gate touches the underside of the bonnet lugs. Align the gate with the opening between the lugs and retract it into the bonnet by turning the stem screw counter-clockwise. Place the hub on the stem screw. Insert the lock handle and retain it with the cotter pin. Do not spread the pin, since it may be removed later while adjusting the gate level.
4. Install the seat on the bonnet and stand the assembly upright, resting on the seat. Turn the handle clockwise until the hub is stopped by the top of the screw housing.

Make a pencil mark on one side of the gate, even with the bottom of the seat port. Raise the bottom of the gate into the seat bore, by rotating the handle, and measure the distance from the pencil mark to the bottom of the gate. This distance must be within the following limits for each size valve:

$$\frac{5}{16}'' \text{ 2"} \frac{7}{16}'' \quad \frac{3}{8}'' \text{ 3"} \frac{1}{2}''$$

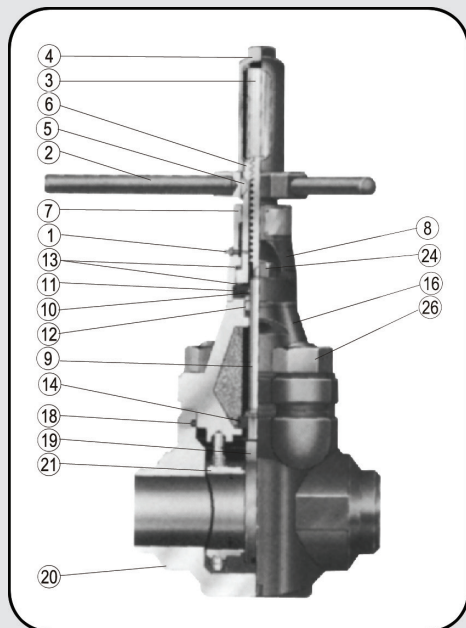
If the distance is correct, proceed to assembly step 5. If not, remove the seat, lock handle and hub from the assembly. Rotate the stem screw clockwise to bottom. Turn the gate and stem together, while holding the stem screw: counterclockwise to reduce the distance, or clockwise to increase the distance, as required. One-half turn of the gate and stem changes the distance approximately 1/16" Repeat step 4 until the closed gate position is correct.

5. Replace the bonnet seal (18) and install the seat and bonnet in the body, making sure the gate is started into the seat and the top pins on the seat are started into the drilled holes in the bonnet. Tighten the coupling on 2" valves; on other sizes, replace and tighten nuts (26). Spread the cotter pin (22) in the lock handle and replace the hub with general purpose grease through fitting (1).

When the MUD KING high pressure gate valve is reassembled in the manner described, the hub is stopped by the screw housing at the proper down position of the gate. Over tightening is impossible and

DM REBUILD INSTRUCTION 4", 5" x 4" - 5000 WP

REASSEMBLY



DISASSEMBLY

MUD KING GATE VALVES for high pressure service are readily disassembled and reassembled without removing the body from the line. Inspection and repair may be accomplished in a short time, to restore the valve to full operation efficiency.

Release all pressure from the line in which the valve is installed. If downstream from another, closed valve under pressure, that valve should be locked or sealed and tagged to prevent opening while this work is being done.

1. Fully open the gate valve. Remove nuts (26) (unscrew coupling (15) on 2" valves) and withdraw the bonnet assembly from the body. Collapse the seat (21), by compressing the insert pins together, and remove it from the body.
2. With the bonnet assembly on its side, remove pin (22) and lock handle (4) then lift off hub (2). Remove coupling (15) on 2" valves. Turn stem screw (6) clockwise to bottom, then withdraw gate (19) from stem (9) by rotating a quarter turn and sliding it off the tee-head of the stem.
3. Seat or gate replacement may be made at this point. To reassemble the valve, proceed from reassembly instruction 3. If it is desired to inspect other parts, the following instruction apply.

4. Remove stem cap (4), tube (3), handle (2) and key (5). Remove nuts (24) and lift off the screw (6) off the stem (left hand Acme) and remove bearings (13) and retainer (11). Lift the stem part way so that the down stop ring (14) may be removed, then withdraw the stem from the underside of the bonnet. The stem seal assembly (12), including the bushing, may now be removed.

Thoroughly clean all parts and inspect them for wear or damage. It is recommended that seals (7), (10), (18) and stem seal assembly (12) be replaced if they are worn or cut. All sealing surfaces should be clean and free of dirt, rust, nicks and scratches. These will include the areas inside the body adjacent to the line bore where the seat fits, the area around the lower part of the bonnet o-ring seal, the bonnet stuffing box and the surface of the stem that passes through the packing. Clean these surfaces well and polish with emery cloth if necessary, paying particular attention to the valve stem. Also clean and polish the surfaces of the stem screw that run against the bearing. Before reassembling, apply a good grade of general purpose grease to all threads, seal rings and exterior of the seat and on the surfaces of the bonnet, stem and stem screw which are in contact with seals.

1. Slide the threaded end of the stem (9) through the bonnet bore, from the underside and draw the stem head part way up into the bonnet. Put the down stop ring (14) on over the bottom of the stem head, lower the stem so that the down stop ring shoulders on the inside of the bonnet and slide the gate (19) onto the tee-head of the stem
2. Place the stem seal assembly (12) over the stem. This assembly consists of seal rings, a flat backed follower ring and a bushing which are placed over the end of the stem in that order. Work the seal and follower rings carefully down over the stem threads lips careful that the lips of the rings do not get curled back. After the bushing, put the retainer (11), with o-ring seal (10) inside, down over the stem with flat side up.
3. Follow the retainer with a bearing (13) and the stem screw (6). The bearing must be concentric with the stem screw before further assembly. It can be held in place by turning the stem screw counterclockwise until the stem head back seats against the bonnet. Place another bearing down over the stem screw and follow it with the screw housing (8), with o-ring seal (7) inside, and tighten nuts (24). Put the key (5) into its slot in the stem screw and replace the handle (2), tube (3) and stem cap (4) in that order.
4. If the valve was not torn down completely to begin with, the gate is replaced at this point. Slide the gate (19) onto the stem, turn it a quarter turn to line up all the way into the bonnet by turning the handle counter-clockwise. Place the seat (21) in the valve body keeping the top pins on the seat in line with the body line bore. Replace the bonnet seal (18) and put the bonnet assembly on the body, making sure the gate is started into the seat and the top pins on the seat are started into the drilled holes in the bonnet before tightening the nuts (26). Tighten nuts (26) and repack the screw housing (8) with general purpose grease through fitting (1).

MODEL 72 ASSEMBLY PART NUMBER



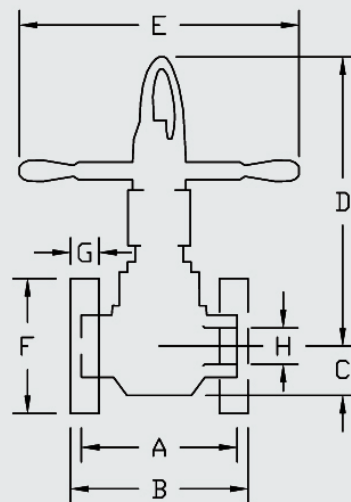
The MKP Model 72 gate valve is designed for easy operation and long life before maintenance is required.

The valve is hydrostatically tested after assembly per API-6D requirements.

With removable body subs and split bonnet design, field repair is simple and quick with no timing of the gate required.

DIMENSIONS & WEIGHTS

		2"	3"	4"
A - Threaded		9	11	13
B - Flanged		11 5/8	15 5/8	18
C - All		3 7/16	4 1/4	4 3/4
D - All		15 13/16	20 9/16	24 1/4
E - All		17 1/4	20	21 1/2
F - Flanged		8 1/2	10 1/2	12 1/2
G - Flanged		1 13/16	2 3/16	2 7/16
H - All, Min. Bore		2	3	4
Weight(lbs)	Threaded	98	188	272
	Flanged	140	254	384



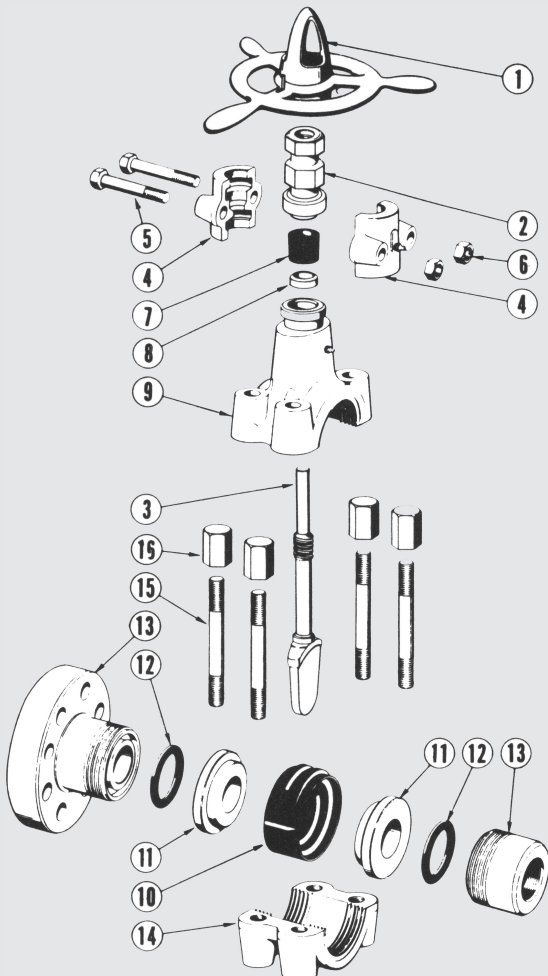
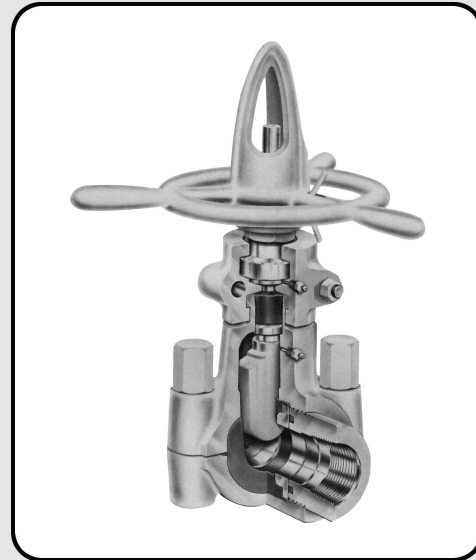
Standard Assemblies				
		5000 WP		
Size		2"	3"	4"
Weld End - Regular Port	Sch.xxH -10x Sch.160 -11x	M112000-xx	M113000-xx	M114000-xx
Gate Packing/Stem Packing/O-Ring	Buna N -xx1 Viton Seat -xx2			
Screwed End - Full Port	LP -20x NUE -21x	M122000-xxx	M123000-xxx	M124000
Gate Packing/Stem Packing/O-Ring	Buna N -xx1 Viton Seat -xx2			
Flanged End	Raised Race -30x RTJ -31x	M132000-xxx	M133000-xxx	M134000-xxx
Gate Packing/Stem Packing/O-Ring	Buna N -xx1 Viton Seat -xx2			

MODEL 72 PARTS LIST 2", 3", 4" - 5000 WP

Field repair is simple with cost kept to a minimum. The valve features replaceable body subs that eliminate the expense of replacing valve bodies when connections can no longer be used.

The full rising one-piece stainless steel gate and stem is machined with heavy-duty, small pitch threads assembled with a durable ball bearing that makes for quick and smooth operation.

The oversized handwheel allows for tight shut-offs with the stem visible to show the user the gate position at a glance.



REF	DESCRIPTION	5000 WP		
		2"	3"	4"
1	Handwheel	M120132	M120142	M120143
2	Stem Nut	M120232	M120242	M120243
3	Gate Stainless Steel	M120323	M120333	M120343
4	Split Bonnet Assembly	M120432	M120442	M120443
5	Bonnet Bolt	M120532	M120542	M120543
6	Bonnet Nut	M120623	M120623	M120623
7	Stem Packing Buna N -1 Viton -2	M120732-x	M120742-x	M120743-x
8	Stem Packing Ring	M120832	M120842	M120843
9	Valve Body	M120925	M120935	M120945
10	Gate Packing Buna N -1 Viton -2	M121023-x	M121033-x	M121043-x
11	Wear Plate Stainless Steel	M121123	M121133	M121143
12	O-Ring Buna N -1 Viton -2	M121223-x	M121233-x	M121243-x
13	Thread Body Sub Regular Port - Weld Sch.xxH -10 Sch.160 -11 Full Port Screwed LP -20 NUE -21 Flanged Raised Face -30 RTJ -31	M121323-xx	M121333-xx	M121343-xx
14	Body Cap	M121425	M121435	M121445
15	Body Stud Bolt	M121525	M121535	M121545
16	Body Stud Nut	M121625	M121635	M121645

