



MKP CATALOG

MUD PUMP PARTS
& EXPENDABLES

CARTRIDGE ASSEMBLIES

HANDLING TOOLS

DRILLING EQUIPMENT

GATE VALVES

BUTTERFLY VALVES



“At MUD KING, we care about the PRODUCT you receive.”

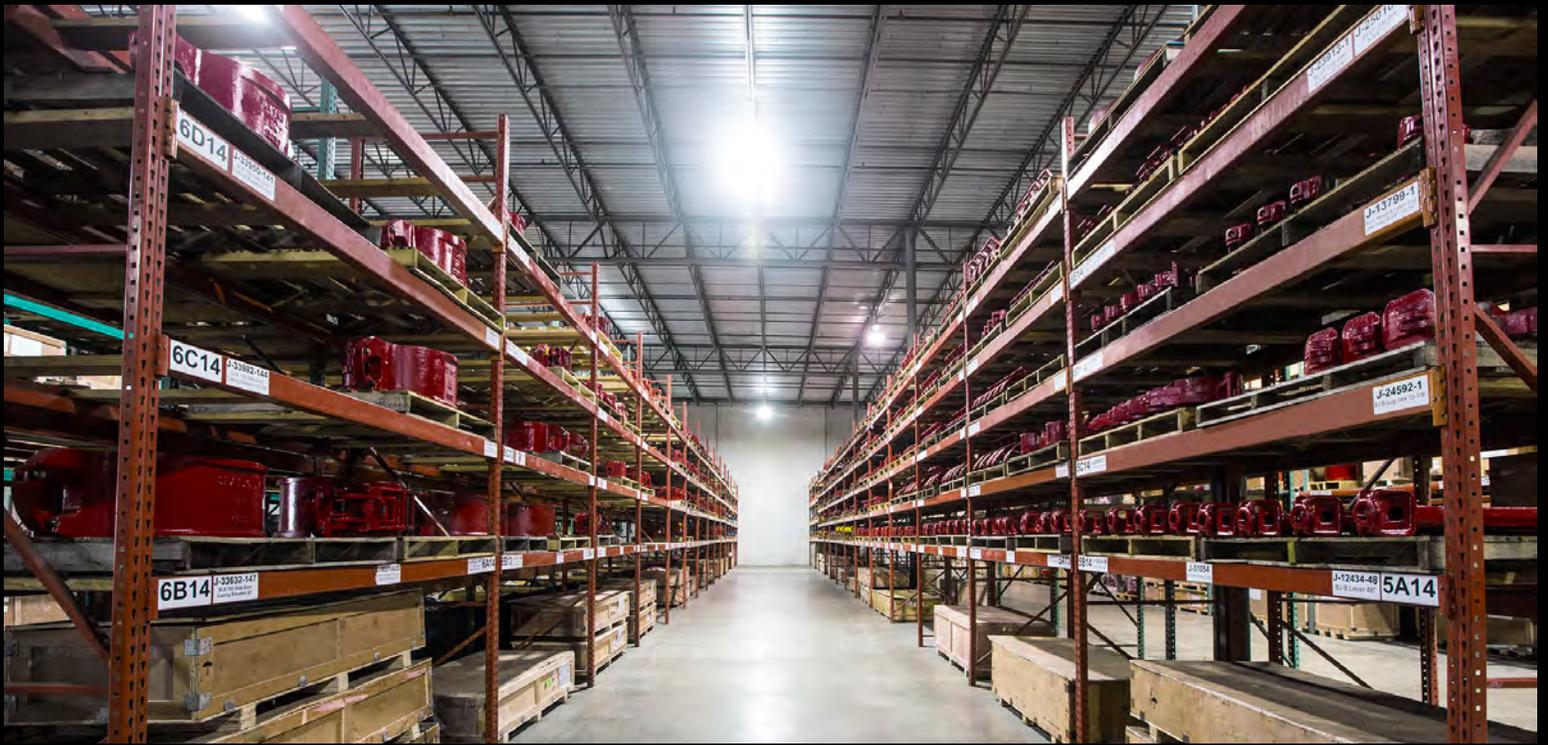
MKP

From the initial call or email received, every detail is important to us. We don't believe in selling you on flashy Mission statements or Guarantees, we let our Product do the talking and word of mouth do the selling. With our headquarters centrally located in Houston, TX we are here to serve you, because ultimately that is what is most important.

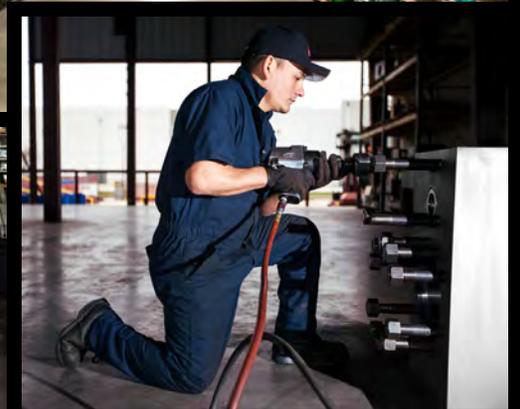
We also understand that making the sale isn't where the deal ends. This is why we pride ourselves on:

QUALITY, CUSTOMER SERVICE, KNOWLEDGE, PRICE, DELIVERY, AND AFTER SALE SERVICE

Each and every one of these components is as important as the next. Our objective at Mud King is to exceed your expectations in every way possible. Our team is committed to this, our company lives by this.



MUD KING PRODUCTS





MUD KING PRODUCTS

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**MUD PUMP PARTS
& EXPENDABLES**

Full Line of Mud Pump Fluid End Parts For National, Emsco, Ideco, Oilwell and Gardner Denver

WARRANTY

MUD KING: warrants its products to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from the date of shipment. The liability for any defects shall be limited to the repair or replacement of such products, or, at the option of **MUD KING** the refunding of purchase price. This warranty is expressly in lieu of all other warranties and representations, expressed or implied, and all other obligations or liabilities on the part of MUD KING, which shall not be liable for consequential damages for any breach of warranty. Any controversy or dispute arising out of the sale of **MUD KING** products shall be determined in accordance with the laws of the State of Texas.

**MUD KING PRODUCTS MUD PUMP EXPENDABLES AND FLUID END MODULES AND PARTS
ARE MANUFACTURED STRICTLY FOR MUD KING UNDER API AND ISO LICENSE**

**MKP, INC. is in no way affiliated with any O.E.M. Names and Part Numbers are for
identification purposes only and are not trade marks or trade names used by MKP, INC.**



MUD PUMP EXPENDABLES

TRIPLEX FLUID END PARTS

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MUD PUMP EXPENDABLES

TRIPLEX FLUID END PARTS

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EMSCO

6¾ × 7

F-350

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0146-40	MKG-0281
4½"	MK-0146-44	MKG-0281
5"	MK-0146-50	MKG-0281
5½"	MK-0146-54	MKG-0281
6"	MK-0146-60	MKG-0281
6¼"	MK-0146-62	MKG-0281
6½"	MK-0146-64	MKG-0281
6¾"	MK-0146-66	MKG-0281

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0733	MKG-0281

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-05	MK-5DD-B1	MK-5710-111	MK-UDD-5B	MK-1700-5
MKP-FULL OPEN	MK-5DFO-V1	MK-5DFO-S1	MK-5710-030	MK-5DFO-SI	MK-1700-5FO
MKP-DOUBLE ANGLE	MK-0500117	MK-0508623	MK-05147900	MK-0515844	MK-1700-5BA
MKP-PLATE TYPE	MK-0504991	MK-0508623	MK-05144230	MK-0504888	MK-1700-5BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400-10	MK-I40HK10	MK-I40HK	MK-RB-400-10	MK-LL-400-10
4½"	MK-RT-440-10	MK-I44HK10	MK-I44HK	MK-RB-440-10	MK-LL-440-10
5"	MK-RT-500-10	MK-I50HB10	MK-I50HB	MK-RB-500-10	MK-LL-500-10
5½"	MK-RT-540-10	MK-I54HB10	MK-I54HB	MK-RB-540-10	MK-LL-540-10
6"	MK-RT-600-10	MK-I60HB10	MK-I60HB	MK-RB-600-10	MK-LL-600-10
6½"	MK-RT-640-10	MK-I64HL10	MK-I64HL	MK-RB-640-10	MK-LL-640-10

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0147	N/A	MK-16-0142	MK-24-0146	MK-7403224

EMSCO

6³/₄ × 7¹/₂

F-500

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0146-40	MKG-0281
4½"	MK-0146-44	MKG-0281
5"	MK-0146-50	MKG-0281
5½"	MK-0146-54	MKG-0281
6"	MK-0146-60	MKG-0281
6¼"	MK-0146-62	MKG-0281
6½"	MK-0146-64	MKG-0281
6¾"	MK-0146-66	MKG-0281

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0733	MKG-0281

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-05	MK-5DD-B1	MK-5710-111	MK-UDD-5B	MK-1700-5
MKP-FULL OPEN	MK-5DFO-V1	MK-5DFO-S1	MK-5710-030	MK-5DFO-SI	MK-1700-5FO
MKP-DOUBLE ANGLE	MK-0500117	MK-0508623	MK-05147900	MK-0515844	MK-1700-5BA
MKP-PLATE TYPE	MK-0504991	MK-0508623	MK-05144230	MK-0504888	MK-1700-5BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400-10	MK-I40HK10	MK-I40HK	MK-RB-400-10	MK-LL-400-10
4½"	MK-RT-440-10	MK-I44HK10	MK-I44HK	MK-RB-440-10	MK-LL-440-10
5"	MK-RT-500-10	MK-I50HB10	MK-I50HB	MK-RB-500-10	MK-LL-500-10
5½"	MK-RT-540-10	MK-I54HB10	MK-I54HB	MK-RB-540-10	MK-LL-540-10
6"	MK-RT-600-10	MK-I60HB10	MK-I60HB	MK-RB-600-10	MK-LL-600-10
6½"	MK-RT-640-10	MK-I64HL10	MK-I64HL	MK-RB-640-10	MK-LL-640-10

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0146	N/A	MK-16-0146	MK-24-0146	MK-7403224

EMSCO

6³/₄ × 8

F-650

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0146-40	MKG-0281
4½"	MK-0146-44	MKG-0281
5"	MK-0146-50	MKG-0281
5½"	MK-0146-54	MKG-0281
6"	MK-0146-60	MKG-0281
6¼"	MK-0146-62	MKG-0281
6½"	MK-0146-64	MKG-0281
6¾"	MK-0146-66	MKG-0281

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0733	MKG-0281

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-05	MK-5DD-B1	MK-5710-111	MK-UDD-5B	MK-1700-5
MKP-FULL OPEN	MK-5DFO-V1	MK-5DFO-S1	MK-5710-030	MK-5DFO-SI	MK-1700-5FO
MKP-DOUBLE ANGLE	MK-0500117	MK-0508623	MK-05147900	MK-0515844	MK-1700-5BA
MKP-PLATE TYPE	MK-0504991	MK-0508623	MK-05144230	MK-0504888	MK-1700-5BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0151	N/A	MK-16-0141	MK-24-0147	MK-7403364

EMSCO

6¾ × 9

F-800

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0148-40	MKG-0282
4½"	MK-0148-44	MKG-0282
5"	MK-0148-50	MKG-0282
5½"	MK-0148-54	MKG-0282
6"	MK-0148-60	MKG-0282
6¼"	MK-0148-62	MKG-0282
6½"	MK-0148-64	MKG-0282
6¾"	MK-0148-66	MKG-0282

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0740	MKG-0282

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-111	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-111	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-110L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-2	MK-951	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0520008	MK-05139890	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0520008	MK-05139880	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0150	N/A	MK-16-0150	MK-24-0150	MK-7403364

EMSCO

6¾ × 10

F-1000

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0148-40	MKG-0282
4½"	MK-0148-44	MKG-0282
5"	MK-0148-50	MKG-0282
5½"	MK-0148-54	MKG-0282
6"	MK-0148-60	MKG-0282
6¼"	MK-0148-62	MKG-0282
6½"	MK-0148-64	MKG-0282
6¾"	MK-0148-66	MKG-0282

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0740	MKG-0282

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-111	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-111	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-110L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-2	MK-951	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0520008	MK-05139890	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0520008	MK-05139880	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0148	N/A	MK-16-0148	MK-24-0148	MK-7403364

EMSCO

7½ × 12

FB-1300

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-2145-40	MKG-0800
4½"	MK-2145-44	MKG-0800
5"	MK-2145-50	MKG-0800
5½"	MK-2145-54	MKG-0800
6"	MK-2145-60	MKG-0800
6¼"	MK-2145-62	MKG-0800
6½"	MK-2145-64	MKG-0800
6¾"	MK-2145-66	MKG-0800
7"	MK-2145-70	MKG-0800
7½"	MK-2145-74	MKG-0800

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0741	MKG-0801

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-115	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-115	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-115	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-115L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05139890	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05139880	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	N/A	N/A

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-2145	N/A	MK-16-0145	MK-24-0145	MK-7403364

EMSCO

7½ × 12

FB-1600

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-2145-40	MKG-0800
4½"	MK-2145-44	MKG-0800
5"	MK-2145-50	MKG-0800
5½"	MK-2145-54	MKG-0800
6"	MK-2145-60	MKG-0800
6¼"	MK-2145-62	MKG-0800
6½"	MK-2145-64	MKG-0800
6¾"	MK-2145-66	MKG-0800
7"	MK-2145-70	MKG-0800
7½"	MK-2145-74	MKG-0800

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0741	MKG-0801

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-115	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-115	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-115	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-115L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05139890	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05139880	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	N/A	N/A

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-2145	N/A	MK-16-0145	MK-24-0145	MK-7403364

MUD PUMP EXPENDABLES

TRIPLEX FLUID END PARTS

OPI

7 × 8

700HDL

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0481-40	MKG-0753
4½"	MK-0481-44	MKG-0754
5"	MK-0481-50	MKG-0742
5½"	MK-0481-54	MKG-0743
6"	MK-0481-60	MKG-0745
6½"	MK-0481-64	MKG-0746
7"	MK-0481-70	MKG-0756

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0745	MKG-0745

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-115	MK-RN6-I	MK-1700-6FO

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS						
	PISTON ROD	SUB ROD	EXTENSION ROD	EXTENSION ROD CLAMP	PISTON ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0482	MK-0482-B	MK-16-0481	MK-24-0481	MK-24-0482	MK-7403364
THREAD TYPE	MK-0481	MK-0481-B	MK-16-0481	N/A	N/A	MK-7403364

GARDNER DENVER PAH (All Models), PJ8A

5 × 8

Liners & Liner Packing			
SIZES	LINER (Small OD)	LINER PACKING	LINER (Large OD)
3"	MK-0189-30	MKG-0266	
3½"	MK-0189-34	MKG-0266	MK-0193-34
4"	MK-0189-40	MKG-0266	MK-0193-40
4½"	MK-0189-44	MKG-0266	MK-0193-44
5"		MKG-0266	MK-0193-50

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0799	MKG-0799

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-FULL OPEN	MK-4DFO-V1	MK-4FFO-S5	MK-5710-033	MK-4FFO-SI	MK-1700-4FO
MKP-3 WEB	MK-PJ482A	MK-PJ451	MK-5710-078	MK-PJ452	MK-1700-4GD

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
3"	N/A		MK-I30HA	N/A	N/A
3½"	N/A	MK-I34HK14/15	MK-I34HK	N/A	N/A
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0193	N/A	MK-16-0192	MK-24-0191	MK-7403364

GARDNER DENVER TEE, TGE

4 × 5

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
3"	MK-1190-30	MKG-0174
3½"	MK-1190-34	MKG-0174
4"	MK-1190-40	MKG-0174

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MK-25AL20	MK-25AL20

ABRASION RESISTANT	
VALVE ASSEMBLY	MK-209TEE482 (Includes Valve Body, Cage, Spring and Insert)
INSERT	MK-ARI-10
SPRING	MK-2116523
VALVE SEAT PULLER HEAD	MK-1700-16SN

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
3"	N/A	MK-I30HA10	MK-I30HA	N/A	N/A
3½"	N/A	MK-I34HK10	MK-I34HK	N/A	N/A
4"	MK-RT-400-10	MK-I40HK10	MK-I40HK	MK-RB-400-10	MK-LL-400-10

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0204	N/A	MK-300TEE839	MK-201TAE092A	MK-7403224

GARDNER DENVER

7 x 7

PZ-GA & GB

PZ-7

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-1192-40	MKG-0692
4½"	MK-1192-44	MKG-0692
5"	MK-1192-50	MKG-0692
5½"	MK-1192-54	MKG-0692
6"	MK-1192-60	MKG-0692
6¼"	MK-1192-62	MKG-0692
6½"	MK-1192-64	MKG-0692
6¾"	MK-1192-66	MKG-0692
7"	MK-1192-70	MKG-0692

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0749	MKG-0749

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HB	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HB	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0205	N/A	MK-16-0205	MK-24-0191	MK-7403364
THREAD TYPE	MK-0196	N/A	MK-16-0196	N/A	MK-7403364

GARDNER DENVER

7 x 8

PZ-H-E, VE

PZ-8

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-1191-40	MKG-0692
4½"	MK-1191-44	MKG-0692
5"	MK-1191-50	MKG-0692
5½"	MK-1191-54	MKG-0692
6"	MK-1191-60	MKG-0692
6¼"	MK-1191-62	MKG-0692
6½"	MK-1191-64	MKG-0692
6¾"	MK-1191-66	MKG-0692
7"	MK-1191-70	MKG-0692

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0749	MKG-0749

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-70	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0191	N/A	MK-16-0192	MK-24-0191	MK-7403364
THREAD TYPE	MK-0202	N/A	MK-16-0196	N/A	MK-7403364

GARDNER DENVER

7 × 9

PZ-GA & GB

PZ-9

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-1191-40	MKG-0692
4½"	MK-1191-44	MKG-0692
5"	MK-1191-50	MKG-0692
5½"	MK-1191-54	MKG-0692
6"	MK-1191-60	MKG-0692
6¼"	MK-1191-62	MKG-0692
6½"	MK-1191-64	MKG-0692
6¾"	MK-1191-66	MKG-0692
7"	MK-1191-70	MKG-0692

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0749	MKG-0749

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0191	N/A	MK-16-0191	MK-24-0191	MK-7403364
THREAD TYPE	MK-0202	N/A	MK-16-0201	N/A	MK-7403364

GARDNER DENVER

7 x 10

PZL

PZ-10

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0197-40	MKG-0692
4½"	MK-0197-44	MKG-0692
5"	MK-0197-50	MKG-0692
5½"	MK-0197-54	MKG-0692
6"	MK-0197-60	MKG-0692
6¼"	MK-0197-62	MKG-0692
6½"	MK-0197-64	MKG-0692
6¾"	MK-0197-66	MKG-0692
7"	MK-0197-70	MKG-0692

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0780	MKG-0780

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0200	N/A	MK-16-0200	MK-24-0200	MK-7403364
THREAD TYPE	MK-0201	N/A	MK-16-0201	N/A	MK-7403364

GARDNER DENVER

7 x 11

PZL

PZ-11

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0197-40	MKG-0692
4½"	MK-0197-44	MKG-0692
5"	MK-0197-50	MKG-0692
5½"	MK-0197-54	MKG-0692
6"	MK-0197-60	MKG-0692
6¼"	MK-0197-62	MKG-0692
6½"	MK-0197-64	MKG-0692
6¾"	MK-0197-66	MKG-0692
7"	MK-0197-70	MKG-0692

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0780	MKG-0780

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
CLAMP TYPE	MK-0200	N/A	MK-16-0200	MK-24-0200	MK-7403364
THREAD TYPE	MK-0201	N/A	MK-16-0201	N/A	MK-7403364

IDECO

7 × 8

T-500

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0234-40	MKG-0783
4½"	MK-0234-44	MKG-0783
5"	MK-0234-50	MKG-0783
5½"	MK-0234-54	MKG-0783
6"	MK-0234-60	MKG-0783
6¼"	MK-0234-62	MKG-0783
6½"	MK-0234-64	MKG-0783
6¾"	MK-0234-66	MKG-0783
7"	MK-0234-70	MKG-0783

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0783	MKG-0783

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115L	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-115L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-2	MK-950	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0520008	MK-05147900	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0520008	MK-05144230	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0237	N/A	MK-16-0237	MK-24-0237	MK-7403364

IDECO

7 × 9

T-800

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0230-40	MKG-0783
4½"	MK-0230-44	MKG-0783
5"	MK-0230-50	MKG-0783
5½"	MK-0230-54	MKG-0783
6"	MK-0230-60	MKG-0783
6¼"	MK-0230-62	MKG-0783
6½"	MK-0230-64	MKG-0783
6¾"	MK-0230-66	MKG-0783
7"	MK-0230-70	MKG-0783

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0783	MKG-0783

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115L	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-115L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-2	MK-950	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0520008	MK-05147900	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0520008	MK-05144230	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
PART NO.	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
	MK-0230	N/A	MK-16-0230	MK-24-0230	MK-7403364

IDECO

7 × 10

T-1000

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0230-40	MKG-0783
4½"	MK-0230-44	MKG-0783
5"	MK-0230-50	MKG-0783
5½"	MK-0230-54	MKG-0783
6"	MK-0230-60	MKG-0783
6¼"	MK-0230-62	MKG-0783
6½"	MK-0230-64	MKG-0783
6¾"	MK-0230-66	MKG-0783
7"	MK-0230-70	MKG-0783

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0783	MKG-0783

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115L	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-115L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-2	MK-950	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0520008	MK-05147900	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0520008	MK-05144230	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0230	N/A	MK-16-0231	MK-24-0230	MK-7403364

IDECO

7½ × 12

T-1300

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0233-40	MKG-0782
4½"	MK-0233-44	MKG-0782
5"	MK-0233-50	MKG-0782
5½"	MK-0233-54	MKG-0782
6"	MK-0233-60	MKG-0782
6¼"	MK-0233-62	MKG-0782
6½"	MK-0233-64	MKG-0782
6¾"	MK-0233-66	MKG-0782
7"	MK-0233-70	MKG-0782
7½"	MK-0233-74	MKG-0782

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0782	MKG-0782

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-115	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-115	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-115	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-115L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	MK-RB-740	MK-LL-740

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0233	N/A	MK-16-0233	MK-24-0233	MK-7403364

IDECO

7½ × 12

T-1600

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0233-40	MKG-0782
4½"	MK-0233-44	MKG-0782
5"	MK-0233-50	MKG-0782
5½"	MK-0233-54	MKG-0782
6"	MK-0233-60	MKG-0782
6¼"	MK-0233-62	MKG-0782
6½"	MK-0233-64	MKG-0782
6¾"	MK-0233-66	MKG-0782
7"	MK-0233-70	MKG-0782
7½"	MK-0233-74	MKG-0782

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0782	MKG-0782

SERIES	VALVES	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-115	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-115	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-115	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-115L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	MK-RB-740	MK-LL-740

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0233	N/A	MK-16-0233	MK-24-0233	MK-7403364

OILWELL

7 × 8

A-560-PT

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0287-40	MKG-0753
4½"	MK-0287-44	MKG-0754
5"	MK-0287-50	MKG-0742
5½"	MK-0287-54	MKG-0743
6"	MK-0287-60	MKG-0745
6¼"	MK-0287-62	MKG-0770
6½"	MK-0287-64	MKG-0746
6¾"	MK-0287-66	MKG-0755
7"	MK-0287-70	MKG-0756

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0732	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115L	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-115L	MK-RN6-I	MK-1700-6FO

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-140HK14/15	MK-140HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-144HK14/15	MK-144HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-150HB14/15	MK-150HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-154HB14/15	MK-154HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-160HB14/15	MK-160HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-164HL14/15	MK-164HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-170HL14/15	MK-170HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS						
	PISTON ROD	SUB ROD	CONNECTING ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0283-C	MK-0283-A	MK-0283-D	MK-16-0283	MK-24-0283	MK-7403364

OILWELL

7 x 8

A-350/600-PT

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0287-40	MKG-0753
4½"	MK-0287-44	MKG-0754
5"	MK-0287-50	MKG-0742
5½"	MK-0287-54	MKG-0743
6"	MK-0287-60	MKG-0745
6¼"	MK-0287-62	MKG-0770
6½"	MK-0287-64	MKG-0746
6¾"	MK-0287-66	MKG-0755
7"	MK-0287-70	MKG-0756

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0732	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B6	MK-5710-111	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B6	MK-5710-111	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S6	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561380	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S6	MK-5710-111	MK-RN6-I	MK-1700-6FO

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700

* ¼ Size are available upon request

RODS						
PART NO.	PISTON ROD	SUB ROD	CONNECTING ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
	MK-0283-C	MK-0283-B	MK-0283-D	MK-16-0282	MK-24-0284	MK-7403364

OILWELL

7½ × 9

A-850-PT

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0289-40	MKG-0753
4½"	MK-0289-44	MKG-0754
5"	MK-0289-50	MKG-0742
5½"	MK-0289-54	MKG-0743
6"	MK-0289-60	MKG-0745
6¼"	MK-0289-62	MKG-0770
6½"	MK-0289-64	MKG-0746
6¾"	MK-0289-66	MKG-0755
7"	MK-0289-70	MKG-0756
7¼"	MK-0289-72	MKG-0757
7½"	MK-0289-74	MKG-0758

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0760	N/A

*Also available in small OD, MK-0285-XX

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	N/A	N/A

* ¼ Size are available upon request

RODS						
	PISTON ROD	SUB ROD	CONNECTING ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0283-C	MK-0283-A	MK-0283-D	MK-16-0284	MK-24-0284	MK-7403364

OILWELL

7½ × 10

A-1100-PT

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0289-40	MKG-0753
4½"	MK-0289-44	MKG-0754
5"	MK-0289-50	MKG-0742
5½"	MK-0289-54	MKG-0743
6"	MK-0289-60	MKG-0745
6¼"	MK-0289-62	MKG-0770
6½"	MK-0289-64	MKG-0746
6¾"	MK-0289-66	MKG-0755
7"	MK-0289-70	MKG-0756
7¼"	MK-0289-72	MKG-0757
7½"	MK-0289-74	MKG-0758

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0760	N/A

*Also available in small OD, MK-0285-XX

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	N/A	N/A

* ¼ Size are available upon request

RODS						
	PISTON ROD	SUB ROD	CONNECTING ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0283-C	MK-0283-A	MK-0283-D	MK-16-0284	MK-24-0284	MK-7403364

OILWELL

7½ × 10

A-1400-PT

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0284-40	MKG-0753
4½"	MK-0284-44	MKG-0754
5"	MK-0284-50	MKG-0742
5½"	MK-0284-54	MKG-0743
6"	MK-0284-60	MKG-0745
6¼"	MK-0284-62	MKG-0770
6½"	MK-0284-64	MKG-0746
6¾"	MK-0284-66	MKG-0755
7"	MK-0284-70	MKG-0756
7¼"	MK-0284-72	MKG-0757
7½"	MK-0284-74	MKG-0758

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0760	N/A

*Also available in small OD, MK-0283-XX

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	N/A	N/A

* ¼ Size are available upon request

RODS						
	PISTON ROD	SUB ROD	CONNECTING ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0283-C	MK-0283-A	MK-0283-D	MK-16-0284	MK-24-0284	MK-7403364

OILWELL

7½ × 12

A-1700-PT

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0284-40	MKG-0753
4½"	MK-0284-44	MKG-0754
5"	MK-0284-50	MKG-0742
5½"	MK-0284-54	MKG-0743
6"	MK-0284-60	MKG-0745
6¼"	MK-0284-62	MKG-0770
6½"	MK-0284-64	MKG-0746
6¾"	MK-0284-66	MKG-0755
7"	MK-0284-70	MKG-0756
7¼"	MK-0284-72	MKG-0757
7½"	MK-0284-74	MKG-0758

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0760	N/A

*Also available in small OD, MK-0283-XX

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B1	MK-5710-110	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B1	MK-5710-110	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S1	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561370	MK-1560702	MK-1560557	MK-1700-7G2
MKP-3 WEB	MK-202PZL482A	MK-202PZL039	MK-5710-110	MK-201PZL106	MK-1700-7R
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S1	MK-5710-110L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-7	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0509309	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0509309	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I74HL	N/A	N/A

* ¼ Size are available upon request

RODS						
	PISTON ROD	SUB ROD	CONNECTING ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0283-C	MK-0283-A	MK-0283-D	MK-16-0284	MK-24-0284	MK-7403364

NATIONAL

4½ × 5

JWS165/340

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
3"	MK-0240-30	MK-1712064
3½"	MK-0240-34	MK-1712064
4"	MK-0240-40	MK-1712064
4½"	MK-0240-44	MK-1712064

Gaskets	
JWS165	MK-2410031-429
JWS340	MK-1718265

SERIES	MKP – G2	MKP – G2
	SUCTION	DISCHARGE
VALVE (Urethane Insert)	MK-1561575	MK-1561575
VALVE (Rubber Insert)	N/A	N/A
VALVE SEAT	MK-1561571	MK-1561572
VALVE SPRING	MK-1712211	MK-1712206
VALVE INSERT (Urethane)	MK-1561577	MK-1561577
VALVE INSERT (Red Thunder)	N/A	N/A
VALVE INSERT (Rubber)	N/A	N/A
VALVE SEAT PULLER HEAD	N/A	N/A

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
3"	N/A	MK-I30HA10	MK-I30HA	N/A	N/A
3½"	N/A	MK-I34HK10	MK-I34HK	N/A	N/A
4"	MK-RT-400-10	MK-I40HK10	MK-I40HB	MK-RB-400-10	MK-LL-400-10
4½"	MK-RT-440-10	MK-I44HK10	MK-I44HK	MK-RB-440-10	MK-LL-440-10

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
ONE PIECE	MK-0238		MK-16-0238	MK-24-0238	MK-7403224

NATIONAL

5½ × 7

JWS400

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0237-40	MKG-0272
4½"	MK-0237-44	MKG-0274
5"	MK-0237-50	MKG-0276
5½"	MK-0237-54	MKG-0278

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MK-1715146	N/A

SERIES	MKP – G2	MKP – G2
	SUCTION	DISCHARGE
VALVE (Urethane Insert)	MK-1561575	MK-1561575
VALVE (Rubber Insert)	N/A	N/A
VALVE SEAT	MK-1561561	MK-1561569
VALVE SPRING	MK-1560698	MK-1717296
VALVE INSERT (Urethane)	MK-1561577	MK-1561577
VALVE INSERT (Red Thunder)	N/A	N/A
VALVE INSERT (Rubber)	N/A	N/A
VALVE SEAT PULLER HEAD	N/A	N/A

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400-10	MK-I40HK10	MK-I40HK	MK-RB-400-10	MK-LL-400-10
4½"	MK-RT-440-10	MK-I44HK10	MK-I44HK	MK-RB-440-10	MK-LL-440-10
5"	MK-RT-500-10	MK-I50HB10	MK-I50HB	MK-RB-500-10	MK-LL-500-10
5½"	MK-RT-540-10	MK-I54HB10	MK-I54HB	MK-RB-540-10	MK-LL-540-10

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-2239-A	MK-2239-B	MK-16-2239	MK-24-2239	MK-7403224

NATIONAL

6¹/₄ × 7³/₄

7-P-50

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0257-40	MKG-0272
4½"	MK-0257-44	MKG-0274
5"	MK-0257-50	MKG-0276
5½"	MK-0257-54	MKG-0278
6"	MK-0257-60	MKG-0280
6¼"	MK-0257-62	MKG-0268

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MK-61-0253	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-05	MK-5DD-B3	MK-5710-111	MK-UDD-5B	MK-1700-5
MKP-FULL OPEN	MK-5DFO-V1	MK-5DFO-S3	MK-5710-030	MK-5DFO-SI	MK-1700-5FO
MKP-DOUBLE ANGLE	MK-0500117	MK-0515745	MK-05147900	MK-0515844	MK-1700-5BA
MKP-PLATE TYPE	MK-0504991	MK-0515745	MK-05144230	MK-0504888	MK-1700-5BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0257-A	MK-0257-B	MK-16-0257	MK-24-0257	MK-7403364

NATIONAL

6½ × 8½

8-P-80

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0256-40	MKG-0272
4½"	MK-0256-44	MKG-0274
5"	MK-0256-50	MKG-0276
5½"	MK-0256-54	MKG-0278
6"	MK-0256-60	MKG-0280
6¼"	MK-0256-62	MKG-0268
6½"	MK-0256-64	MKG-0268

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MK-61-0255	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B4	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B4	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S4	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561450	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S4	MK-5710-115L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-1	MK-951	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0512436	MK-05147900	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0512436	MK-05155760	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HB14/15	MK-I64HB	MK-RB-640	MK-LL-640

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0259-A	MK-0259-B	MK-16-0259	MK-24-0259	MK-7403364

NATIONAL

6³/₄ × 9¹/₄

9-P-100

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
	PART NO.	PART NO.
4"	N/A	N/A
4½"	MK-0255-44	MKG-0274
5"	MK-0255-50	MKG-0265
5½"	MK-0255-54	MKG-0263
6"	MK-0255-60	MKG-0261
6¼"	MK-0255-62	MKG-0283
6½"	MK-0255-64	MKG-0768
6¾"	MK-0255-66	MKG-0768

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
PART NO.	PART NO.
MK-61-0255	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B4	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B4	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S4	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561450	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S4	MK-5710-115L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-1	MK-951	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0512436	MK-05147900	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0512436	MK-05155760	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0260-A	MK-0260-B	MK-16-0260	MK-24-0260	MK-7403364

NATIONAL

6¾ × 10

10-P-130

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	N/A	N/A
4½"	MK-0255-44	MKG-0274
5"	MK-0255-50	MKG-0265
5½"	MK-0255-54	MKG-0263
6"	MK-0255-60	MKG-0261
6¼"	MK-0255-62	MKG-0283
6½"	MK-0255-64	MKG-0768
6¾"	MK-0255-66	MKG-0768

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MK-61-0255	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5B-EH	MK-6ADD-B4	MK-5710-115	MK-UDD-6AB	MK-1700-6
MKP-4 WEB HIGH TEMP	MK-U5B-EHHT	MK-6ADD-B4	MK-5710-115	MK-UDD-6ABHT	MK-1700-6
MKP-FULL OPEN	MK-6FO-V1	MK-6FO-S4	MK-5710-115	MK-6FO-SI	MK-1700-6FO
MKP-G2	MK-1560995	MK-1561450	MK-1560701	MK-1560587	MK-1700-6G2
MKP-ROUGHNECK	MK-RN6-V1	MK-RN6-S4	MK-5710-115L	MK-RN6-I	MK-1700-6FO
MKP-SW FULL OPEN	MK-773-1	MK-873-1	MK-951	MK-973	MK-1700-6SW
MKP-DOUBLE ANGLE	MK-0500119	MK-0512436	MK-05147900	MK-0515845	MK-1700-6BA
MKP-PLATE TYPE	MK-0505038	MK-0512436	MK-05155760	MK-0504890	MK-1700-6BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NUMBER	MK-0256-A	MK-0256-B	MK-16-0256	MK-24-0256	MK-7403364

NATIONAL

7½ × 12

12-P-160

Liners & Liner Packing		
SIZES	LINER	LINER PACKING
4"	MK-0259-40	MKG-0265
4½"	MK-0259-44	MKG-0265
5"	MK-0259-50	MKG-0264
5½"	MK-0259-54	MKG-0263
6"	MK-0259-60	MKG-0261
6¼"	MK-0259-62	MKG-0283
6½"	MK-0259-64	MKG-0284
6¾"	MK-0259-66	MKG-0287
7"	MK-0259-70	MKG-0285
7¼"	MK-0259-72	MKG-0286
7½"	MK-0259-74	N/A

Gaskets	
Valve Cover Gasket	Cylinder Head Gasket
MKG-0771	N/A

SERIES	VALVE	SEAT	SPRING	URETHANE INSERT	PULLER HEAD
MKP-4 WEB	MK-U5C-EEF	MK-7DD-B12	MK-5710-115	MK-UDD-7B	MK-1700-7
MKP-4 WEB HIGH TEMP	MK-U5C-EEFHT	MK-7DD-B12	MK-5710-115	MK-UDD-7BHT	MK-1700-7
MKP-FULL OPEN	MK-7FO-V1	MK-7FO-S12	MK-5710-115L	MK-7FO-SI	MK-1700-7FO
MKP-G2	MK-1560985	MK-1561440	MK-1560702	MK-1560557	MK-1700-7G2
MKP-ROUGHNECK	MK-RN7-V1	MK-RN7-S12	MK-5710-115L	MK-RN7-I	MK-1700-7FO
MKP-SW FULL OPEN	MK-777-7	MK-877-8	MK-951	MK-977	MK-1700-7SW
MKP-DOUBLE ANGLE	MK-0500110	MK-0514299	MK-05147900	MK-0514275	MK-1700-7BA
MKP-PLATE TYPE	MK-0505062	MK-0514299	MK-05144230	MK-0504893	MK-1700-7BA

Piston Size	Red Thunder Bonded Pistons	Imperial Piston	Imperial Rubber Kits	Rubber Bonded	Long Life (Urethane)
4"	MK-RT-400	MK-I40HK14/15	MK-I40HK	MK-RB-400	MK-LL-400
4½"	MK-RT-440	MK-I44HK14/15	MK-I44HK	MK-RB-440	MK-LL-440
5"	MK-RT-500	MK-I50HB14/15	MK-I50HB	MK-RB-500	MK-LL-500
5½"	MK-RT-540	MK-I54HB14/15	MK-I54HB	MK-RB-540	MK-LL-540
6"	MK-RT-600	MK-I60HB14/15	MK-I60HB	MK-RB-600	MK-LL-600
6½"	MK-RT-640	MK-I64HL14/15	MK-I64HL	MK-RB-640	MK-LL-640
7"	MK-RT-700	MK-I70HL14/15	MK-I70HL	MK-RB-700	MK-LL-700
7½"	N/A	MK-I74HL14/15	MK-I70HL	MK-RB-740	MK-LL-740

* ¼ Size are available upon request

RODS					
	PISTON ROD	SUB ROD	EXTENSION ROD	ROD CLAMP	PISTON ROD NUT
PART NO.	MK-0258-A	MK-0258-B	MK-16-0258	MK-24-0258	MK-7403364



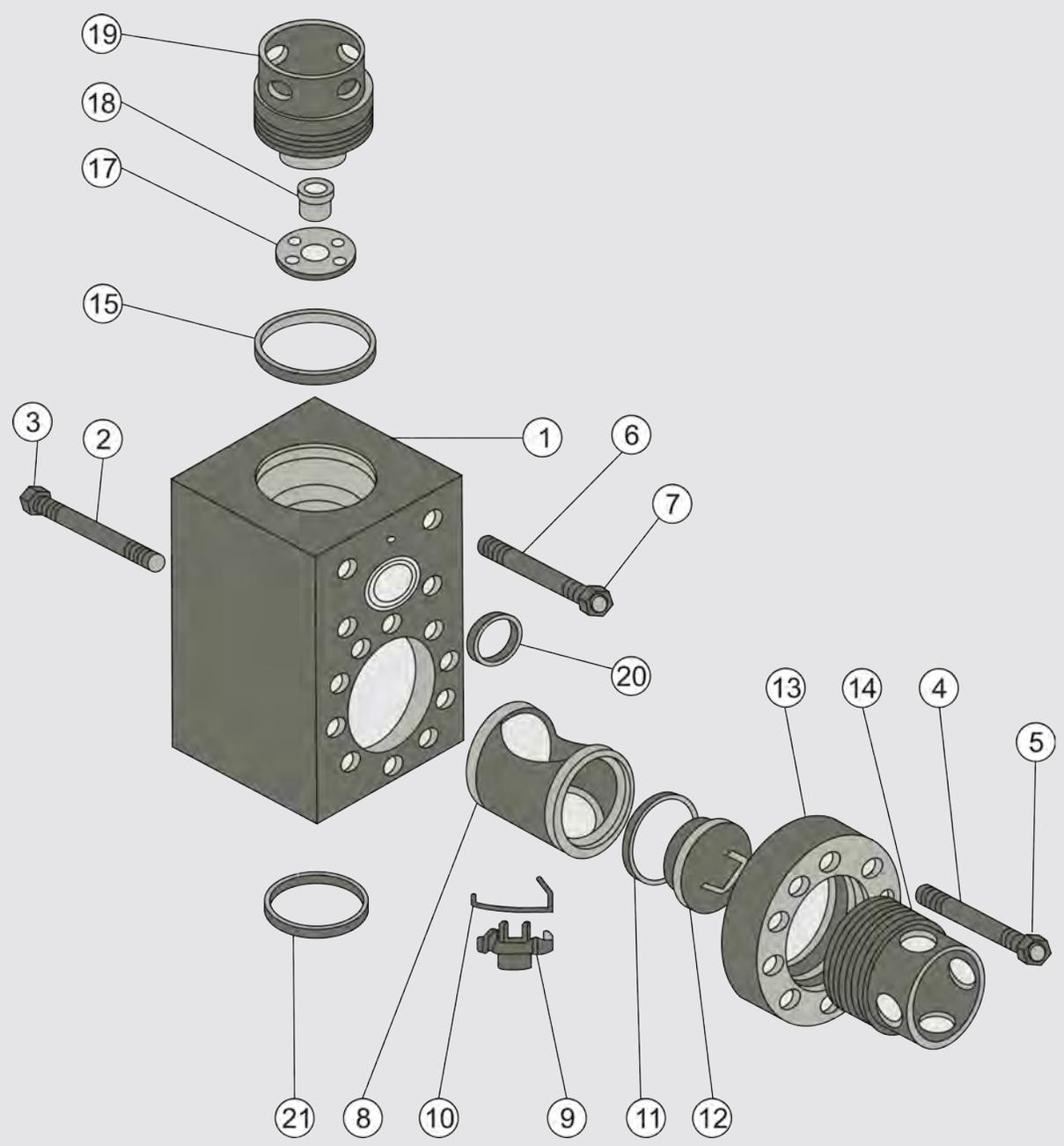
MUD PUMP EXPENDABLES
TRIPLEX FLUID END PARTS

FLUID END MODULE
AND ACCESSORIES

EMSCO F-350, F-500 & F-650

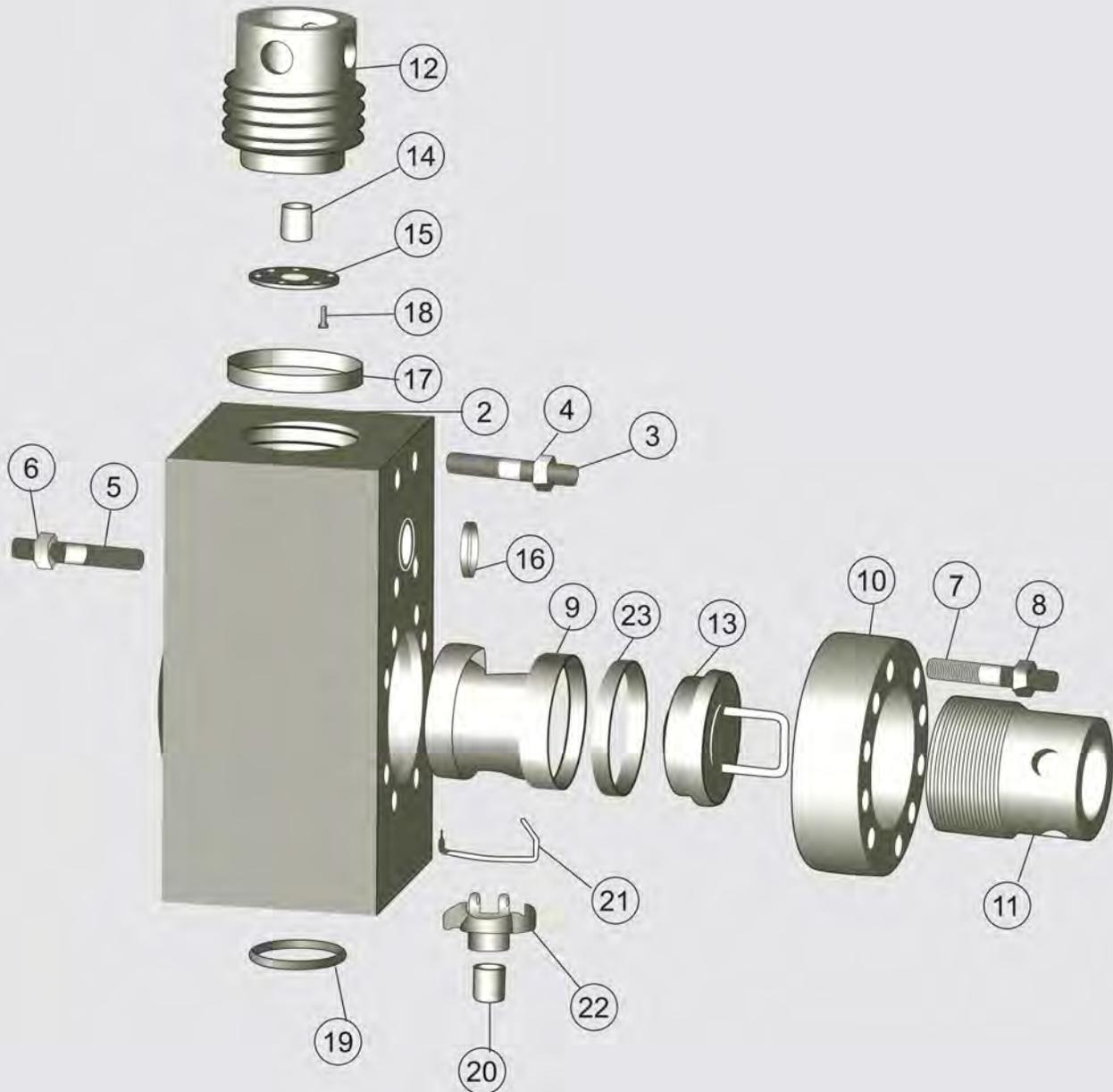
Item	Part No.	Description	Qty per Pump
	MK-6318-0151-00	Fluid Module, Studded (Included Items 2 – 7)	(3)
1		Fluid Module, Only	3
2	MK-7507-2207-00	Stud – Frame	18
3	MK-7601-0630-17	Nut – Frame	18
4	MK-7507-3402-00	Stud – Threaded Ring	36
5	MK-7601-0630-26	Nut – Threaded Ring	36
6	MK-7507-3407-00	Stud – Discharge Manifold	12
7	MK-7601-0630-26	Nut – Discharge Manifold	12
8	MK-6318-0148-00	Liner Cage	3
9	MK-6318-0177-00	Lower Valve Guide with Bushing	3
10	MK-6318-0153-00	Locking Clip	3
11	MK-7602-2200-34	Gasket – Liner	6
12	MK-6318-0158-00	Cylinder Head Plug	3
13	MK-6318-0130-00	Threaded Ring	3
14	MK-6318-0157-00	Cylinder Head	3
15	MK-6310-0084-00	Gasket – Valve Pot Cover	3
16	MK-7501-0051-00*	Retainer Bolt	12
17	MK-6310-0133-00	Retainer Plate	3
18	MK-6397-0602-00	Upper Valve Guide	3
19	MK-6310-0016-01	Valve Pot Cover	3
20	MK-7602-1600-23	Gasket – Discharge Manifold	3
21	MK-7602-1600-33	Gasket – Suction Manifold	3
22	MK-6318-0155-00*	Lower Valve Guide Bushing	3

* Not shown



EMSCO F-800 & F-1000

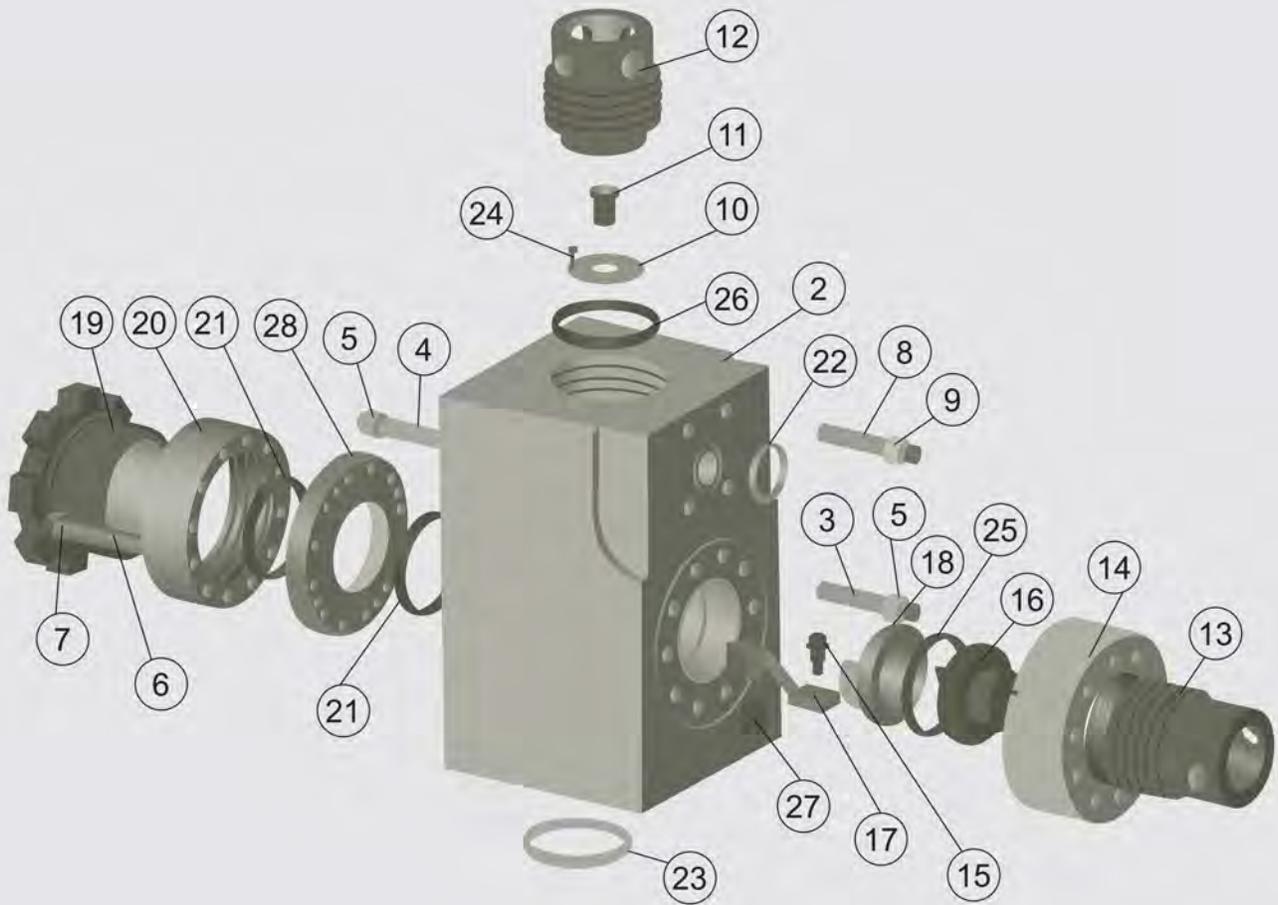
Item	Part No.	Description	Qty per Pump
1	MK-6999-0086-02	Fluid Module, Studded (Included Items 2 – 8)	(3)
2	MK-6999-0087-02	Fluid Module, Only	3
3	MK-7507-2108-00	Stud – Discharge Manifold	12
4	MK-7601-0630-24	Nut – Discharge Manifold	12
5	MK-7507-2205-00	Stud – Frame	18
6	MK-7601-0630-17	Nut – Frame	18
7	MK-7507-2150-00	Stud – Threaded Ring	30
8	MK-7601-0630-26	Nut – Threaded Ring	30
9	MK-6319-0026-00	Liner Cage	3
10	MK-6999-0089-00	Threaded Ring	3
11	MK-6319-0090-00	Cylinder Head	3
12	MK-6319-0027-00	Valve Pot Cover	3
13	MK-6319-0031-00	Cylinder Head Plug	3
14	MK-6397-0575-00	Upper Valve Guide	3
15	MK-6397-0603-00	Retainer Plate	3
16	MK-7602-1610-46	O-Ring, Discharge Manifold	3
17	MK-6319-0076-00	Seal – Valve Pot Cover	3
18	MK-7501-0051-00	Retainer Bolt	12
19	MK-7602-1600-61	O-Ring – Suction Manifold	3
20	MK-6316-0096-00	Lower Valve Guide Bushing	3
21	MK-6319-0089-00	Locking Clip	3
22	MK-6319-0087-00	Lower Valve Guide with Bushing	3
23	MK-7602-2200-32	Seal – Liner, Cylinder Head Plug	3



EMSCO FB – 1300 & FB – 1600

Item	EMSCO Style Part No.	Description	Qty per Pump
1	MK-6316-0357-00	Fluid Module, Studded (Included Items 2 – 9)	(3)
2	MK-6316-0356-00	Fluid Module, Only	3
3	MK-7507-2210-00	Stud – Threaded Ring	30
4	MK-7507-2201-00	Stud – Frame	18
5	MK-7601-0630-17	Nut – Frame, Threaded Ring	48
6	MK-7507-2013-00	Stud – Liner Lock	36
7	MK-7601-0610-18	Nut – Liner Lock	36
8	MK-7507-2108-00	Stud – Discharge Manifold	12
9	MK-7601-0630-24	Nut – Discharge Manifold	12
10	MK-6397-0603-00	Retainer Plate	3
11	MK-6397-0575-00	Upper Valve Guide	3
12	MK-6316-0039-00	Valve Cover	3
13	MK-6316-0362-00	Cylinder Head	3
14	MK-6316-0361-00	Cylinder Threaded Ring	3
15	MK-6316-0360-00	Lock Bolt	3
16	MK-6316-0364-00	Cylinder Head Plug	3
17	MK-6316-0354-00	Lower Valve Guide with Bushing	3
18	MK-6316-0363-00	Alignment Ring	3
19	MK-6316-0367-00	Liner Lock	3
20	MK-6316-0366-00	Liner Threaded Ring	3
21	MK-6316-0373-00	Seal – Wear Plate, Liner	3
22	MK-7602-1600-25	Seal – Discharge Manifold	3
23	MK-7602-1600-61	Seal – Suction Manifold	3
24	MK-7501-0051-00	Retainer Bolt	12
25	MK-6316-0369-00	Seal – Cylinder Head Plug	3
26	MK-6316-0092-00	Seal – Valve Pot Cover	3
27	MK-6316-0096-00	Valve Guide Bushing	3
28	MK-6316-0365-00	¹ Wear Plate	3

¹Offered in Plain Carbon or Stainless Steel



MUD PUMP EXPENDABLES

TRIPLEX FLUID END PARTS

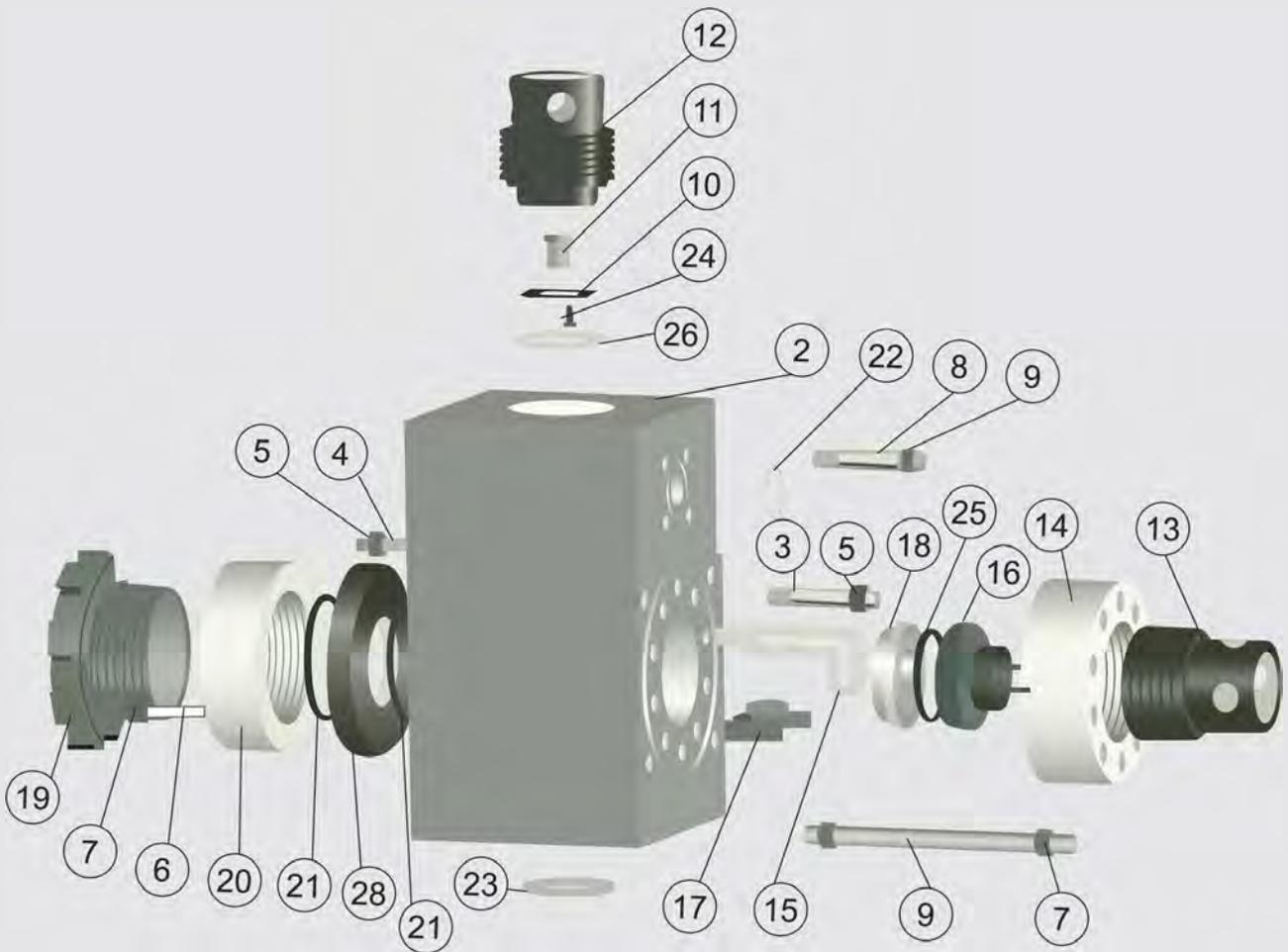
BOMCO

F – 1300 & F – 1600

Item	BOMCO Style Part No.	Description	Qty per Pump
1	MK-AH36002-05-01-00	Fluid Module, Studded (Included Items 2 – 9)	(3)
2	MK-AH36002-05-01-00U	Fluid Module, Only	3
3	MK-7507-2210-00	Stud – Threaded Ring	30
4	MK-7507-2201-00	Stud – Frame	18
5	MK-7601-0630-17	Nut – Frame, Threaded Ring	48
6	MK-7507-2013-00	Stud – Liner Lock	36
7	MK-7601-0610-18	Nut – Liner Lock	36
8	MK-7507-2108-00	Stud – Discharge Manifold	12
9	MK-7601-0630-24	Nut – Discharge Manifold	12
10	MK-6397-0603-00	Retainer Plate	3
11	MK-6397-0575-00	Upper Valve Guide	3
12	MK-6316-0039-00	Valve Cover	3
13	MK-6316-0362-00	Cylinder Head	3
14	MK-6316-0361-00	Cylinder Threaded Ring	3
15	MK-AH36001-05A.04	Lower Valve Guide Retainer	3
16	MK-AH36001-05A.06.00	Cylinder Head Plug	3
17	MK-AH36001-05A.05	Lower Valve Guide with Bushing	3
18	MK-AH36001-05A.07	Alignment Ring	3
19	MK-6316-0367-00	Liner Lock	3
20	MK-6316-0366-00	Liner Threaded Ring	3
21	MK-6316-0373-00	Seal – Wear Plate, Liner	3
22	MK-7602-1600-25	Seal – Discharge Manifold	3
23	MK-7602-1600-61	Seal – Suction Manifold	3
24	MK-7501-0051-00	Retainer Bolt	12
25	MK-6316-0369-00	Seal – Cylinder Head Plug	3
26	MK-6316-0092-00	Seal – Valve Pot Cover	3
27	MK-6316-0096-00 *	Valve Guide Bushing	3
28	MK-6316-0365-00	¹ Wear Plate	3

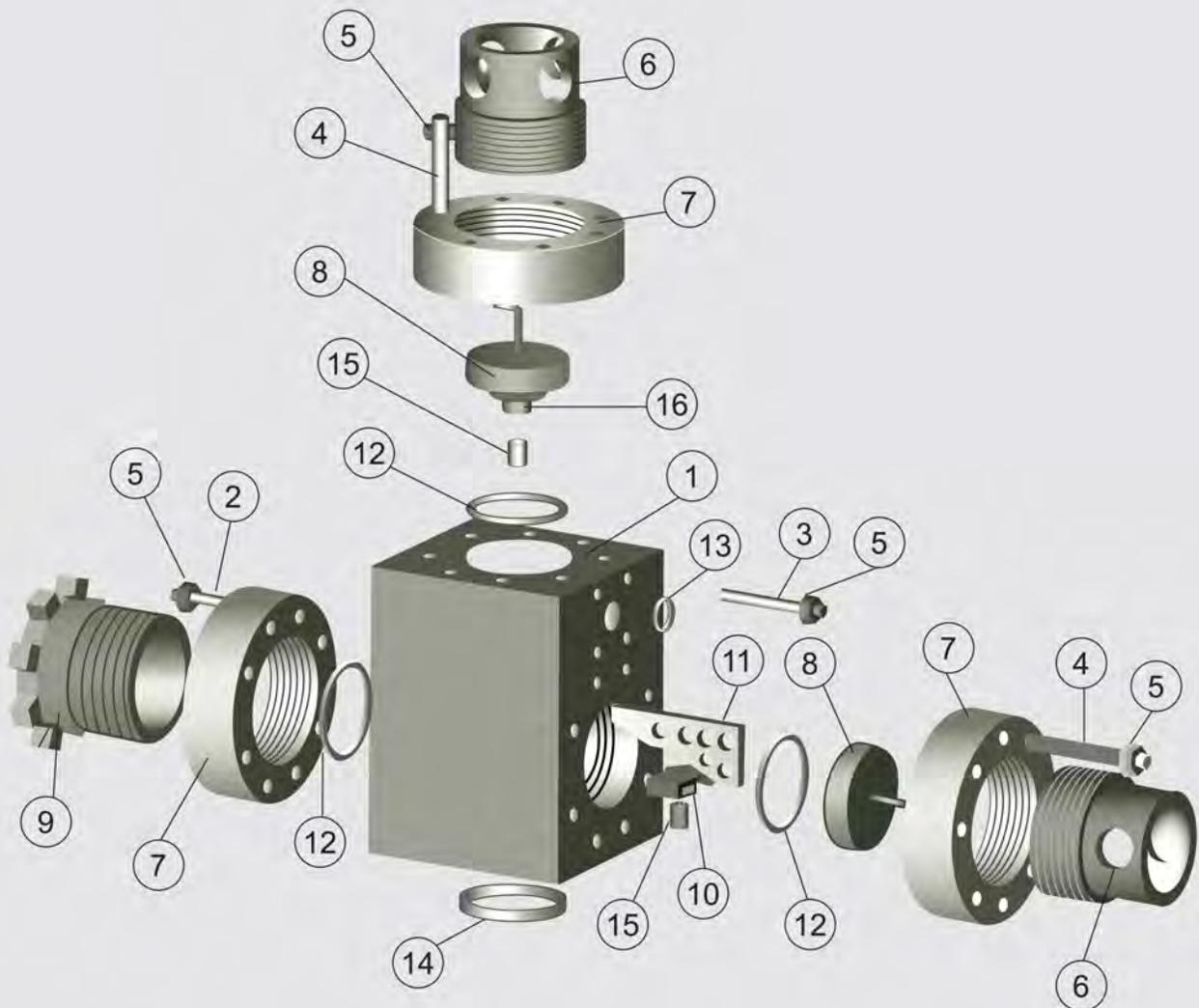
¹Offered in Plain Carbon or Stainless Steel

* Not shown



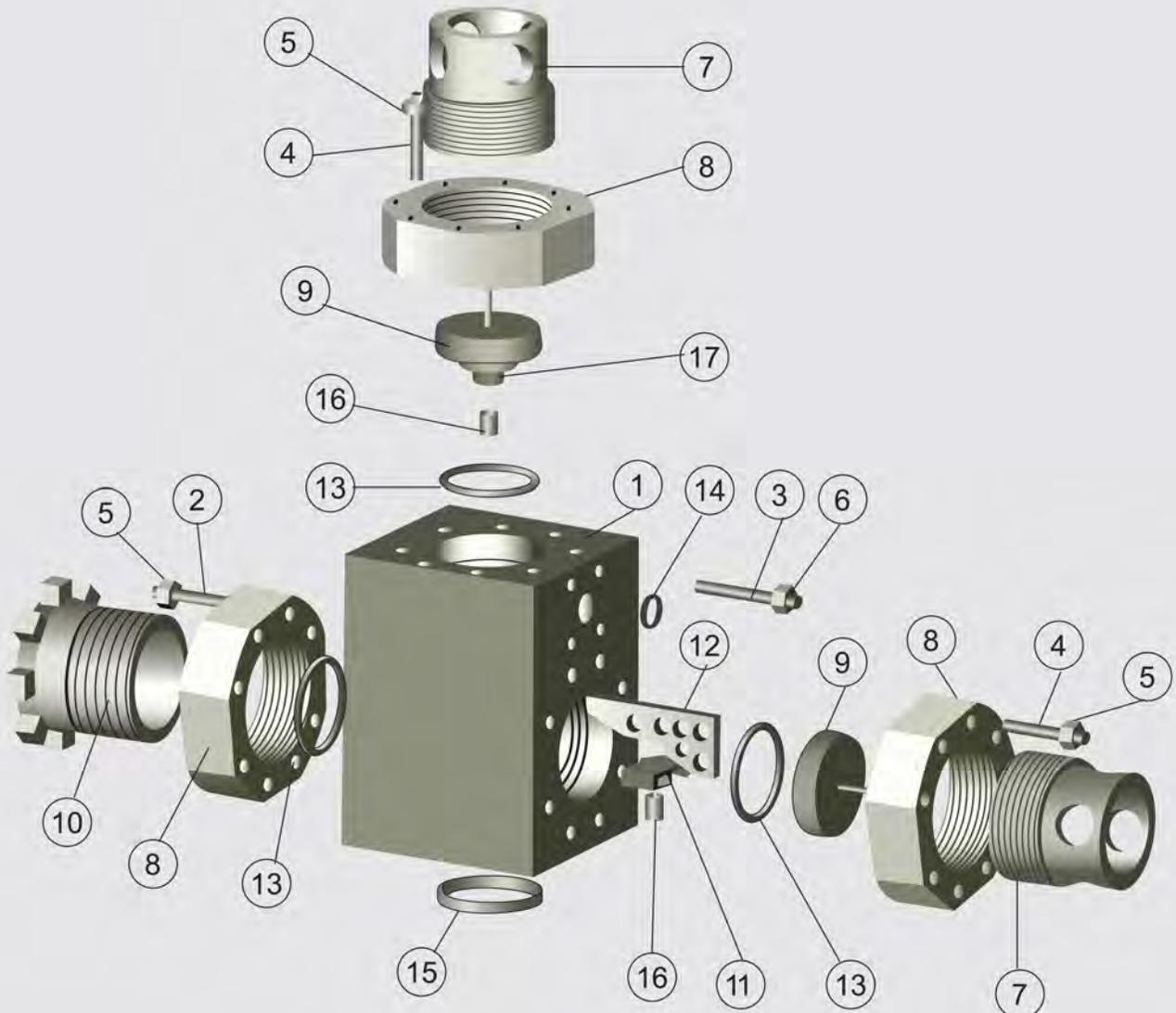
**IDECO
T-500, T-800 & T-1000**

Item	Part No.	Description	Qty per Pump
1	MK-551-458	Fluid Module, Only (Studded Included Items 1 – 5)	3
2	MK-551-410-01	Stud – Frame	24
3	MK-551-410-02	Stud – Discharge Manifold	12
4	MK-551-410-03	Stud – Threaded Ring	48
5	MK-IN-416	Nut	84
6	MK-551-405-04	Threaded Plug Retainer	6
7	MK-551-405-03	Threaded Ring	9
8	MK-551-422-02	Cylinder Head Plug	3
	MK-551-422-03	Cylinder Head Plug – Top (Included Items 8 & 16)	3
9	MK-551-405-05	Threaded Liner Retainer	3
10	MK-551-405-07	Lower Valve Guide	3
11	MK-551-422-04	Retainer – Lower Valve Guide	3
12	MK-BMT-1669-63-09	Seal – Cylinder Head Plug, Liner	9
13	MK-IO-548	Seal – Discharge Manifold	3
14	MK-IO-521	Seal – Suction Manifold	3
15	MK-551-405-09	Valve Guide Bushing	6
16	MK-551-405-06	Upper Valve Guide	3



**IDECO
 T-1300 & T-1600**

Item	Part No.	Description	Qty per Pump
1	MK-551-122-01	Fluid Module Only (Studded Included Items 1 – 6)	3
2	MK-551-110-01	Stud – Frame, Threaded Ring	24
3	MK-551-110-02	Stud – Discharge Manifold	12
4	MK-551-110-03	Stud – Threaded Ring	48
5	MK-IN-415	Nut – Threaded Ring	72
6	MK-IN-416	Nut – Discharge Manifold	12
7	MK-551-105-04	Threaded Plug Retainer	6
8	MK-551-105-03	Threaded Ring	9
9	MK-551-122-02	Cylinder Head Plug	3
	MK-551-122-03	Cylinder Head Plug – Top (Included Items 9 & 17)	3
10	MK-551-105-05	Threaded Liner Retainer	3
11	MK-551-105-07	Lower Valve Guide	3
12	MK-551-105-08	Retainer – Lower Valve Guide	3
13	MK-BMT-1669-63-08	Seal – Cylinder Head Plug, Liner	9
14	MK-IO-548	Seal – Discharge Manifold	3
15	MK-IO-507	Seal – Suction Manifold	3
16	MK-551-105-09	Valve Guide Bushing	6
17	MK-551-105-06	Upper Valve Guide	3

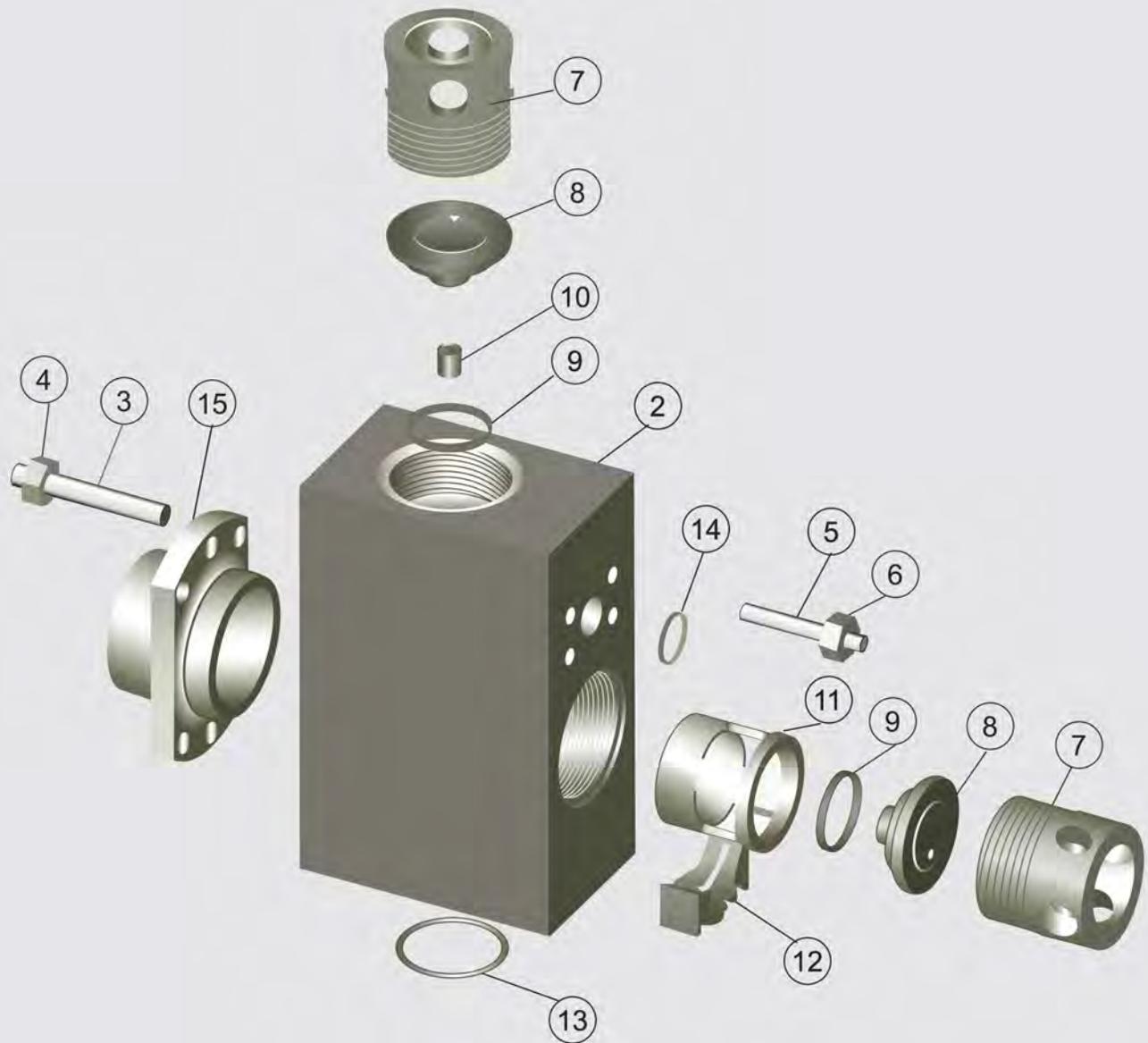


**GARDNER DENVER
 PAH (All Models)**

Item	Part No.	Description	Qty per Pump
1	MK-200PJH029B	Fluid Module, Studded (Included Items 2 – 6)	(3)
2		Fluid Module, Only	3
3	MK-79AJ2	Stud – Frame, Liner Clamp	18
4	MK-50B35	Nut – Frame, Liner Clamp	36
5	MK-79L142	Stud – Discharge Manifold	12
6	MK-50B9	Nut – Discharge Manifold	12
7	MK-3PA587	Threaded Cap	6
8	MK-200PJH147	Cover – Valve	6
9	MK-200PJH715	Gasket – Valve Cover	6
10	MK-2013547	Bushing – Discharge Valve Cover	3
11	MK-200PJH205	Retainer	3
12	MK-200PJH483	Valve Guide – Suction	3
13	MK-25G18	Gasket – Suction Manifold	3
14	MK-25AL54	Gasket – Discharge Manifold	3
15	MK-1PA217	Clamp – Liner	3

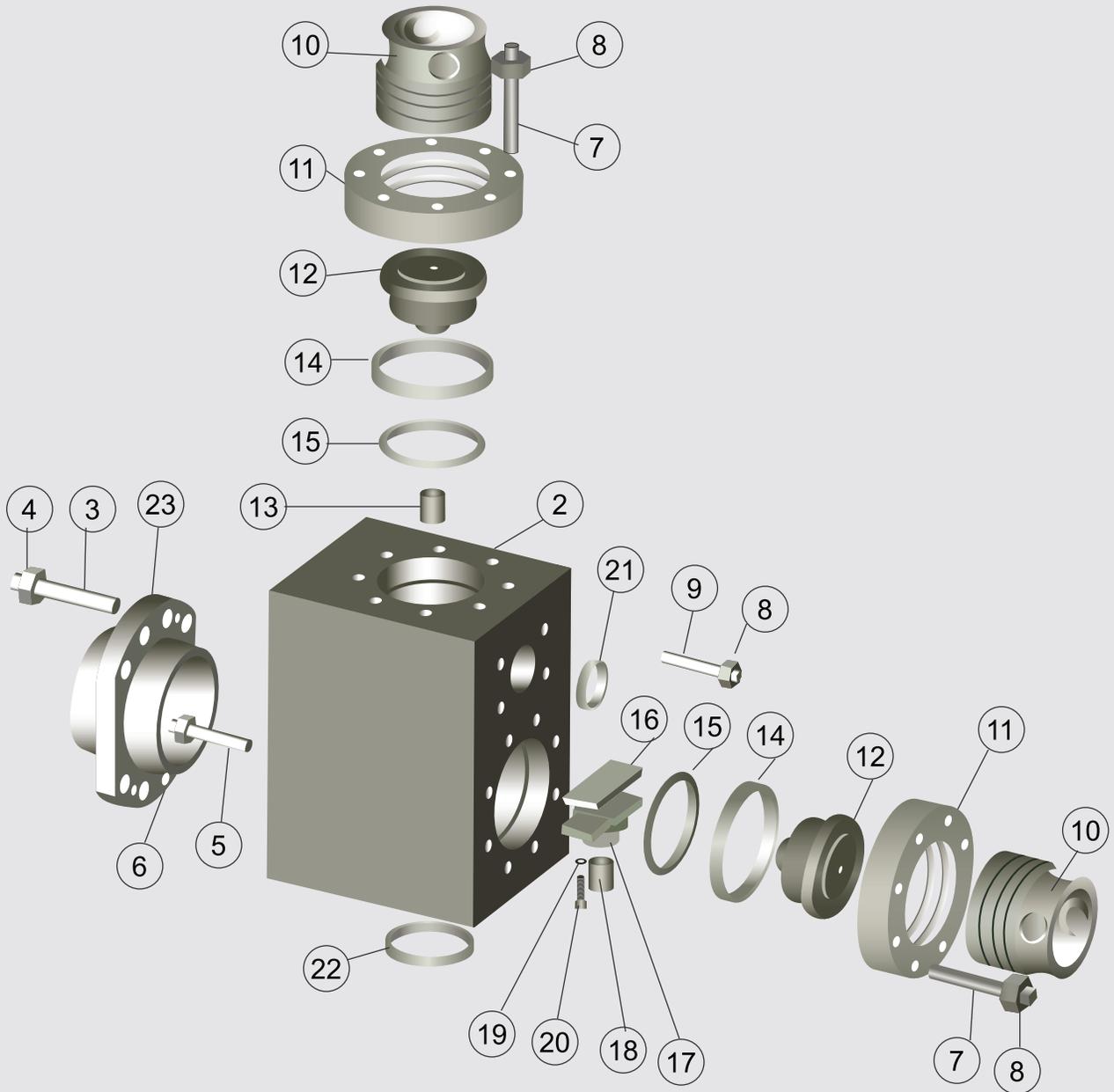
PAH (All Models)

FLUID END MODULE
AND ACCESSORIES



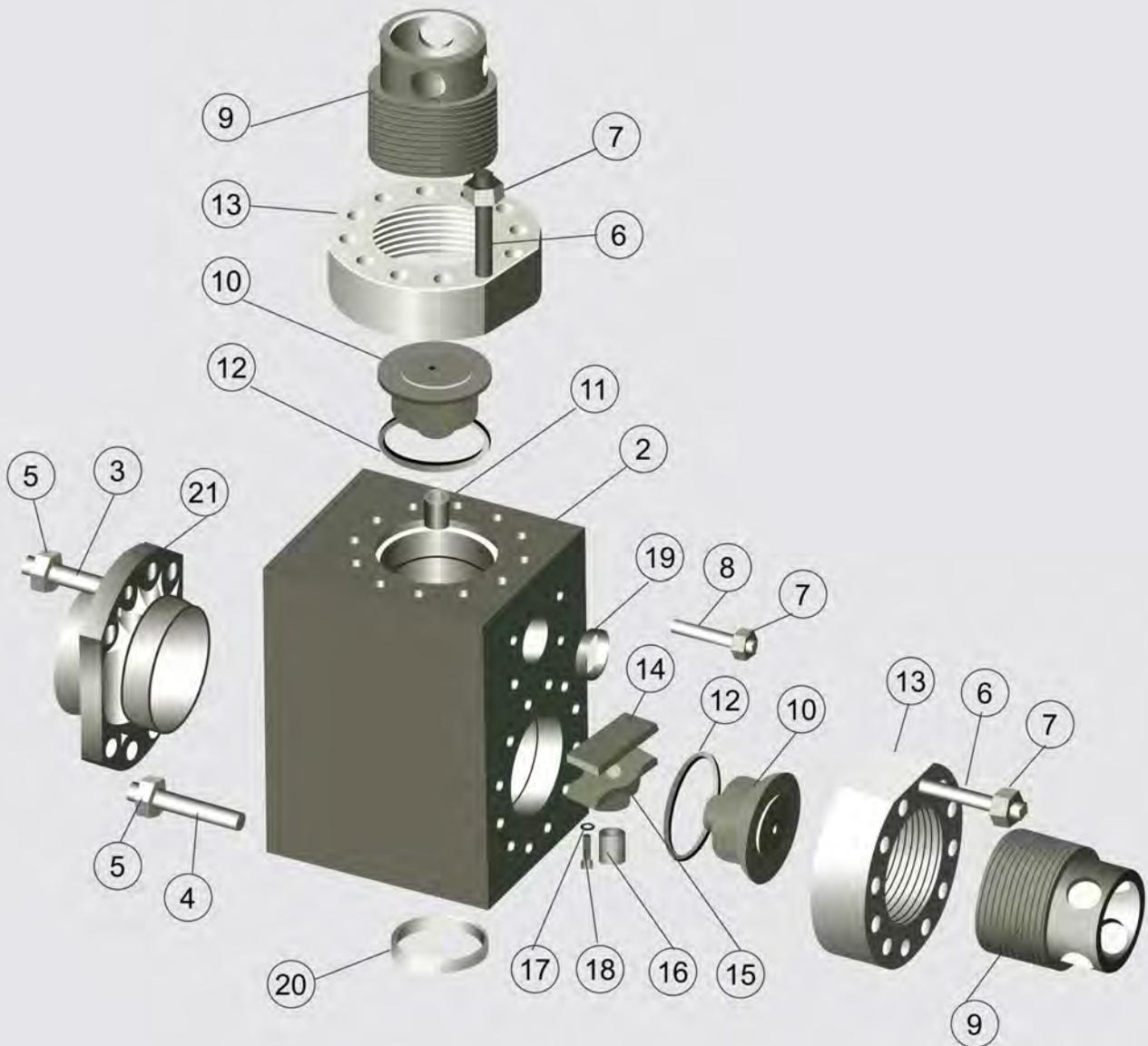
GARDNER DENVER PZ-7, PZ-8 & PZ-9

Item	Part No.	Description	Qty per Pump
1	MK-205PZL029D	Fluid Module, Studded (Included Items 2 – 9)	(3)
2		Fluid Module, Only	3
3	MK-79L188	Stud – Frame, Liner Clamp	24
4	MK-50B36	Nut – Frame, Liner Clamp	48
5	MK-79L73	Stud – Frame	12
6	MK-50AQ30	Nut – Frame	12
7	MK-79AL6	Stud – Threaded Ring	48
8	MK-50B34	Nut – Threaded Ring, Discharge Manifold	60
9	MK-202PZL110	Stud – Discharge Manifold	12
10	MK-2011857	Cap – Valve Lock	6
11	MK-2011699	Threaded Ring	6
12	MK-2011860	Cover – Valve	6
13	MK-2007674	Valve Guide Bushing	3
14	MK-2011862	Gasket – Valve Cover	6
15	MK-2011861	Ring – Retaining / Valve Cover Gasket	6
	MK-2011706	Valve Guide Assembly (Included Items 16 – 20)	(3)
16	MK-2011701	Retainer Plate	3
17	MK-2011700	Valve Guide – Suction	3
18	MK-2007674	Valve Guide Bushing – Suction	3
19	MK-95W2	Lock Washer – Valve Guide / Suction	6
20	MK-655EE06S	Bolt – Valve Guide / Suction	6
21	MK-25AL35	Gasket – Discharge Manifold	3
22	MK-25G41	Gasket – Suction Manifold	3
23	MK-1PV14	Liner Clamp	3



**GARDNER DENVER
 PZ-10 & PZ-11**

Item	Part No.	Description	Qty per Pump
1	MK-202PZL029B	Fluid Module, Studded (Included Items 2 – 8)	(3)
2		Fluid Module, Only	3
3	MK-201PZL110	Stud – Frame, Liner Clamp	24
4	MK-205PZL110	Stud – Frame	24
5	MK-50B36	Nut – Frame, Liner Clamp	60
6	MK-204PZL110	Stud – Threaded Ring	72
7	MK-50B34	Nut – Threaded Ring, Discharge Manifold	84
8	MK-202PZL110	Stud – Discharge Manifold	12
9	MK-200PZL587	Cap – Valve Lock	6
10	MK-200PZL147	Cover – Valve	6
11	MK-2007674	Valve Guide Bushing – Discharge	3
12	MK-204PZL715	Gasket – Valve Cover	6
13	MK-200PZL387	Threaded Ring	6
	MK-200PZL483A	Valve Guide Assembly (Included Items 14 – 18)	(3)
14	MK-2011701	Retainer Plate	3
15	MK-200PZL483	Valve Guide – Suction	3
16	MK-2007674	Valve Guide Bushing – Suction	3
17	MK-95W2	Lock Washer – Valve Guide / Suction	6
18	MK-655EE06S	Bolt – Valve Guide / Suction	6
19	MK-25AL35	Gasket – Discharge Manifold	3
20	MK-25BE41	Gasket – Suction Manifold	3
21	MK-200PZL455	Liner Clamp	3

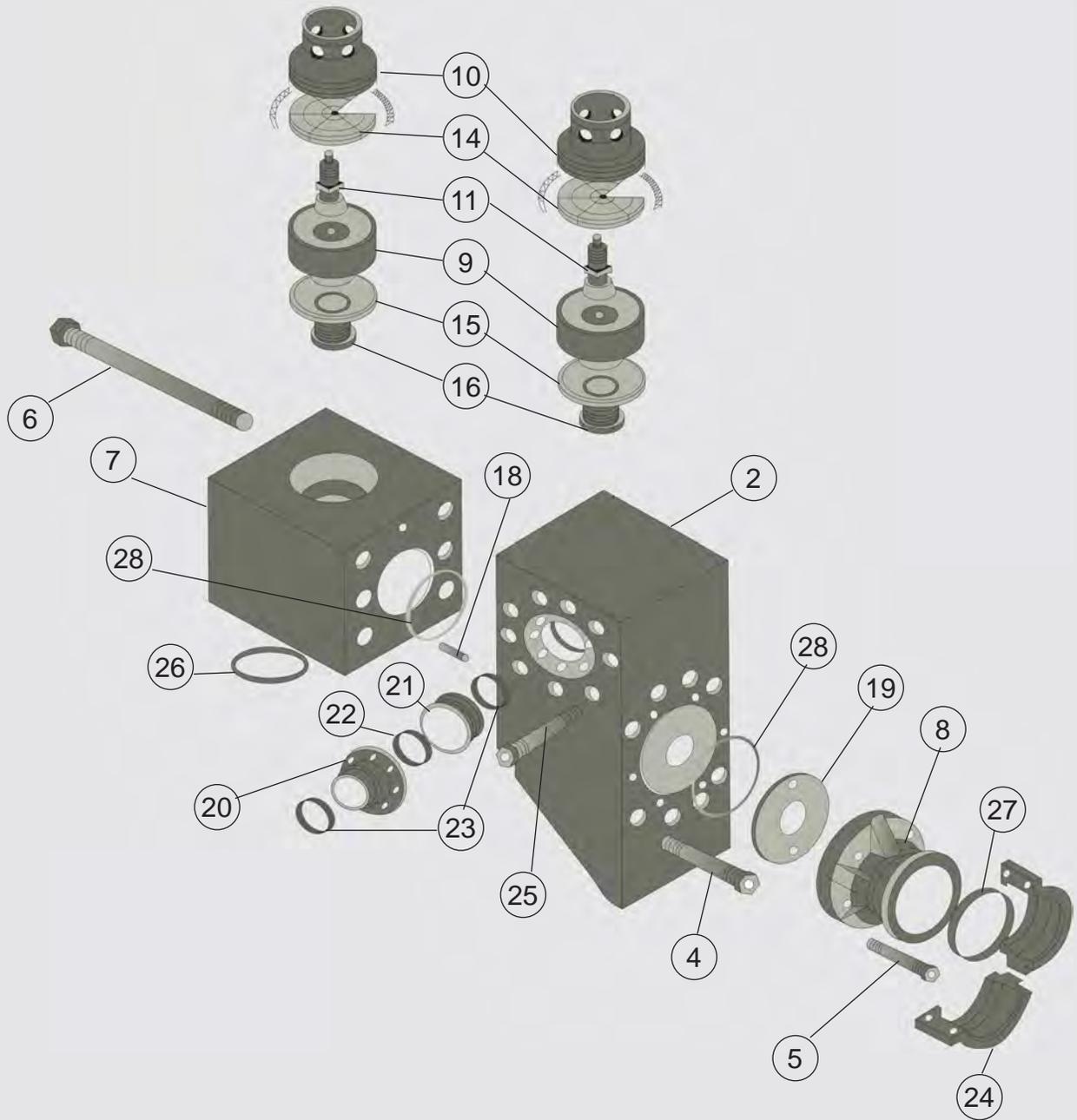


NATIONAL 7-P-50

Item	Part No.	Description	Qty per Pump
1	MK-1294150	Discharge Module, Studded (Included Items 2 – 7)	(3)
2	MK-1294151	Discharge Module, Only	3
3	MK-6300160	Nut – Wedge Adjusting	24
4	MK-2408042	Stud w/Nut – Frame	24
5	MK-2408043	Stud w/Nut – Liner Bushing	18
6	MK-2408041	Stud w/Nut – Discharge to Suction	18
7	MK-1294156	Suction Module	3
8	MK-1294165	Bushing – Liner	3
9	MK-1294174	Seal Retainer	6
10	MK-1294172	Valve Cover	6
11	MK-1290178	Screw – Wedge Adjusting	6
12	MK-1290315*	Washer – Wedge Adjusting	6
13	MK-1290181*	Spring – Wedge Assembly	6
14	MK-1290376	Wedge Assembly	6
15	MK-1540126	Gasket – Valve Cover	6
16	MK-1292140	Holder – Valve Guide	6
17	MK-1292141*	Insert – Valve Guide	6
18	MK-6511416	Pin, Dowell	6
19	MK-1294160	¹ Plate – Wear	3
20	MK-1294170	Connector – Discharge	2
21	MK-1294171	Adapter – Discharge Connector	2
22	MK-2410031-348	Packing, Rectangular	2
23	MK-2410031-427	Packing, Rectangular	4
24	MK-1294166	Clamp – Liner	3
25	MK-2402560	Stud w/ Nut, Discharge Spacer	16
26	MK-1 540142	Seal – Suction Manifold	3
27	MK-1294168	Collar – Liner	3
28	MK-1294192	Seal – Module, Wear Plate	6

¹Offered in Plain Carbon or Stainless Steel

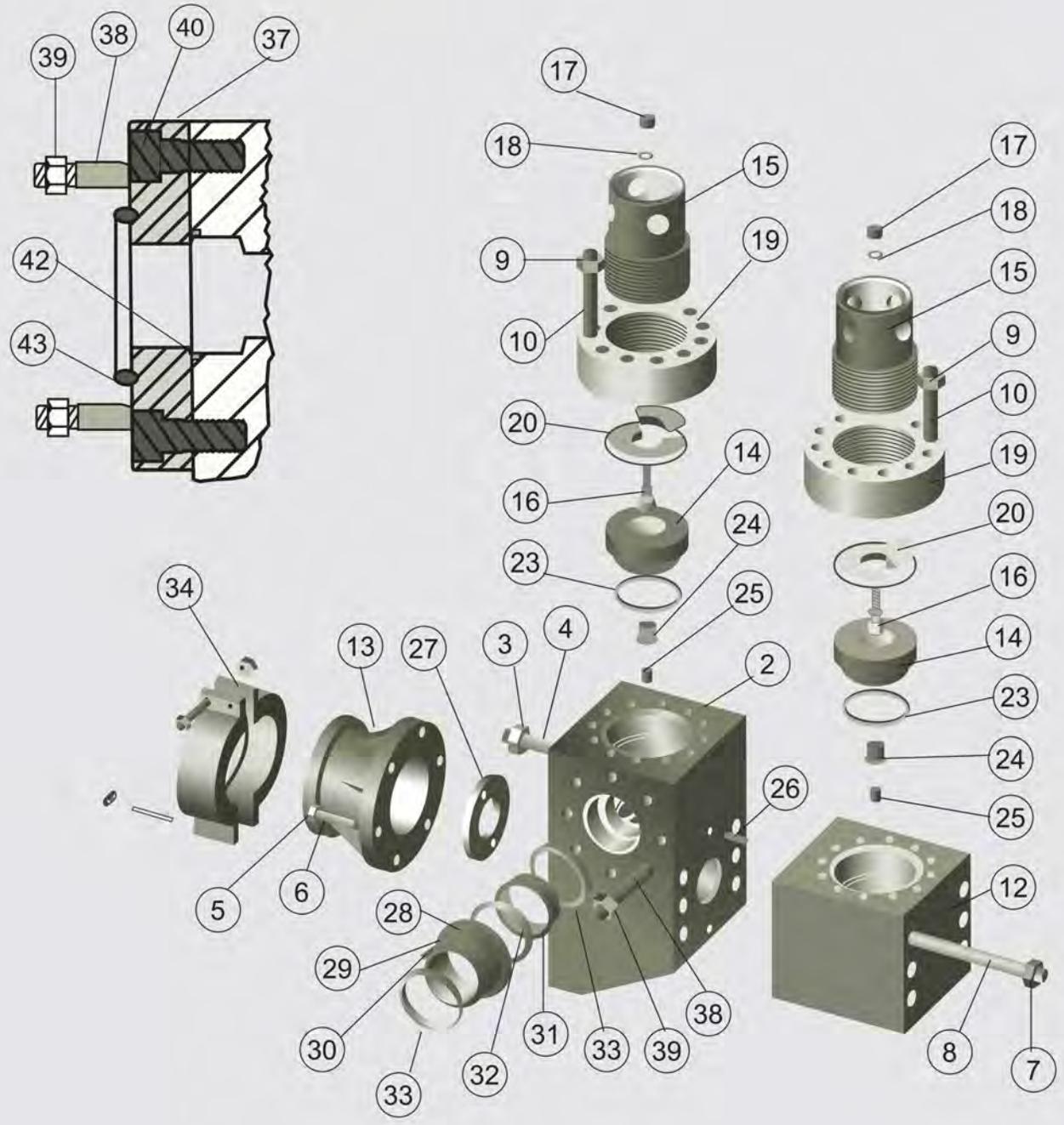
* Not shown



NATIONAL 8-P-80

Item	Part No.	Description	Qty per Pump
1	MK-1291280	Discharge Module, Studded (Included Items 2 – 10)	(3)
2	MK-1291281	Discharge Module, Only	3
3	MK-6300180	Nut – Frame	24
4	MK-2408026	Stud – Frame	24
5	MK-6300120	Nut – Liner Bushing	18
6	MK-2408025	Stud – Liner Bushing	18
7	MK-6300241	Nut – Suction to Discharge Module	18
8	MK-2408034	Stud – Suction to Discharge Module	18
9	MK-6300220	Nut – Threaded Ring	72
10	MK-2408019	Stud – Threaded Ring	72
11	MK-1290338	Suction Module, Studded (Included Items 9, 10, 14)	(3)
12	MK-1290339	Suction Module, Only	3
13	MK-1291165	Bushing – Liner	3
14	MK-1290174	Seal Retainer	6
15	MK-1290307	Valve Cover	6
16	MK-1290178	Screw – Wedge Adjusting	6
17	MK-6300160	Nut – Wedge Adjusting	6
18	MK-1290315	Washer – Wedge Adjusting	6
19	MK-1290308	Threaded Ring	6
20	MK-1290376	Wedge Assembly (Included Items 21 – 22)	(6)
21	MK-1290179*	Wedge, Set	6
22	MK-1290181*	Spring – Wedge Retaining	6
23	MK-1540126	Gasket – Valve Cover	6
24	MK-1292140	Holder – Valve Guide	6
25	MK-1292141	Insert – Valve Guide	6
26	MK-6511416	Pin, Dowell	6
27	MK-1290357	¹ Plate – Wear	3
28	MK-1290342	Connector – Discharge	2
29	MK-7000305-11	Screw, Hex Head	16
30	MK-7619050	Washer, Lock	16
31	MK-1290343	Adapter – Discharge Connector	2
32	MK-2410031-348	Packing, Rectangular	2
33	MK-2410031-427	Packing, Rectangular	4
34	MK-1291166	Clamp – Liner	3
35	MK-1590051*	Seal – Suction Manifold	3
36	MK-1291286	Spacer – Discharge, Studded (included items 37 – 39)	(2)
37	MK-1291287	Spacer – Discharge	2
38	MK-2402560	Stud – Discharge Spacer	16
39	MK-6300200	Nut – Discharge Spacer	16
40	MK-7006607	Capscrew	(16)
41	MK-1290344*	Seal – Module, Wear Plate	6
42	MK-1290345	Seal – Discharge Spacer	2
43	MK-6908033	Ring, Oval Joint	2

¹Offered in Plain Carbon or Stainless Steel * Not shown

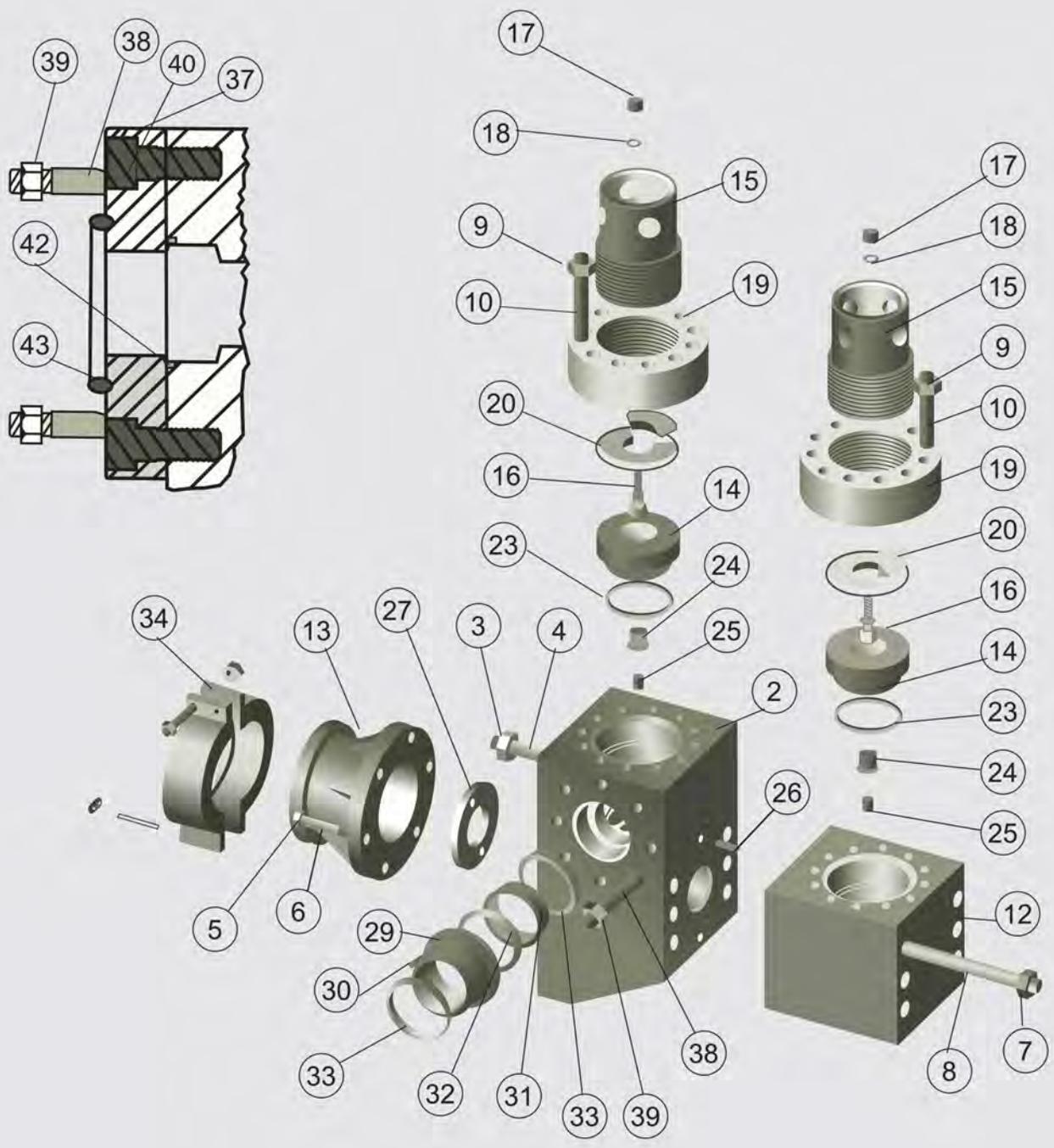


NATIONAL 9-P-100

Item	Part No.	Description	Qty per Pump
1	MK-1293240	Discharge Module, Studded (Included Items 2 – 10)	(3)
2	MK-1293241	Discharge Module, Only	3
3	MK-6300200	Nut – Frame	24
4	MK-2408030	Stud – Frame	24
5	MK-6300160	Nut – Liner Bushing	18
6	MK-2408018	Stud – Liner Bushing	18
7	MK-6300241	Nut – Suction to Discharge Module	18
8	MK-2408034	Stud – Suction to Discharge Module	18
9	MK-6300220	Nut – Threaded Ring	72
10	MK-2408019	Stud – Threaded Ring	72
11	MK-1290338	Suction Module, Studded (Included Items 9, 10, 14)	(3)
12	MK-1290339	Suction Module, Only	3
13	MK-1293165	Bushing – Liner	3
14	MK-1290174	Seal Retainer	6
15	MK-1290307	Valve Cover	6
16	MK-1290178	Screw – Wedge Adjusting	6
17	MK-6300160	Nut – Wedge Adjusting	6
18	MK-1290315	Washer – Wedge Adjusting	6
19	MK-1290308	Threaded Ring	6
20	MK-1290376	Wedge Assembly (Included Items 21 – 22)	(6)
21	MK-1290179*	Wedge, Set	6
22	MK-1290181*	Spring – Wedge Retaining	6
23	MK-1540126	Gasket – Valve Cover	6
24	MK-1292140	Holder – Valve Guide	6
25	MK-1292141	Insert – Valve Guide	6
26	MK-6511416	Pin, Dowell	6
27	MK-1290357	¹ Plate – Wear	3
28	MK-1290342	Connector – Discharge	2
29	MK-7000305-11	Screw, Hex Head	6
30	MK-7619050	Washer, Lock	6
31	MK-1290343	Adapter – Discharge Connector	2
32	MK-2410031-348	Packing, Rectangular	2
33	MK-2410031-427	Packing, Rectangular	4
34	MK-1293166	Clamp – Liner	3
35	MK-1590051*	Seal – Suction Manifold	3
36	MK-1293243	Spacer – Discharge, Studded (Included Items 37 – 39)	(2)
37	MK-1293244	Spacer – Discharge	2
38	MK-2402560	Stud – Discharge Spacer	16
39	MK-6300200	Nut – Discharge Spacer	16
40	MK-7006606	Capscrew	16
41	MK-1290344*	Seal – Module, Wear Plate	6
42	MK-1290345	Seal – Discharge Spacer	2
43	MK-6908033	Ring, Oval Joint	2

¹Offered in Plain Carbon or Stainless Steel

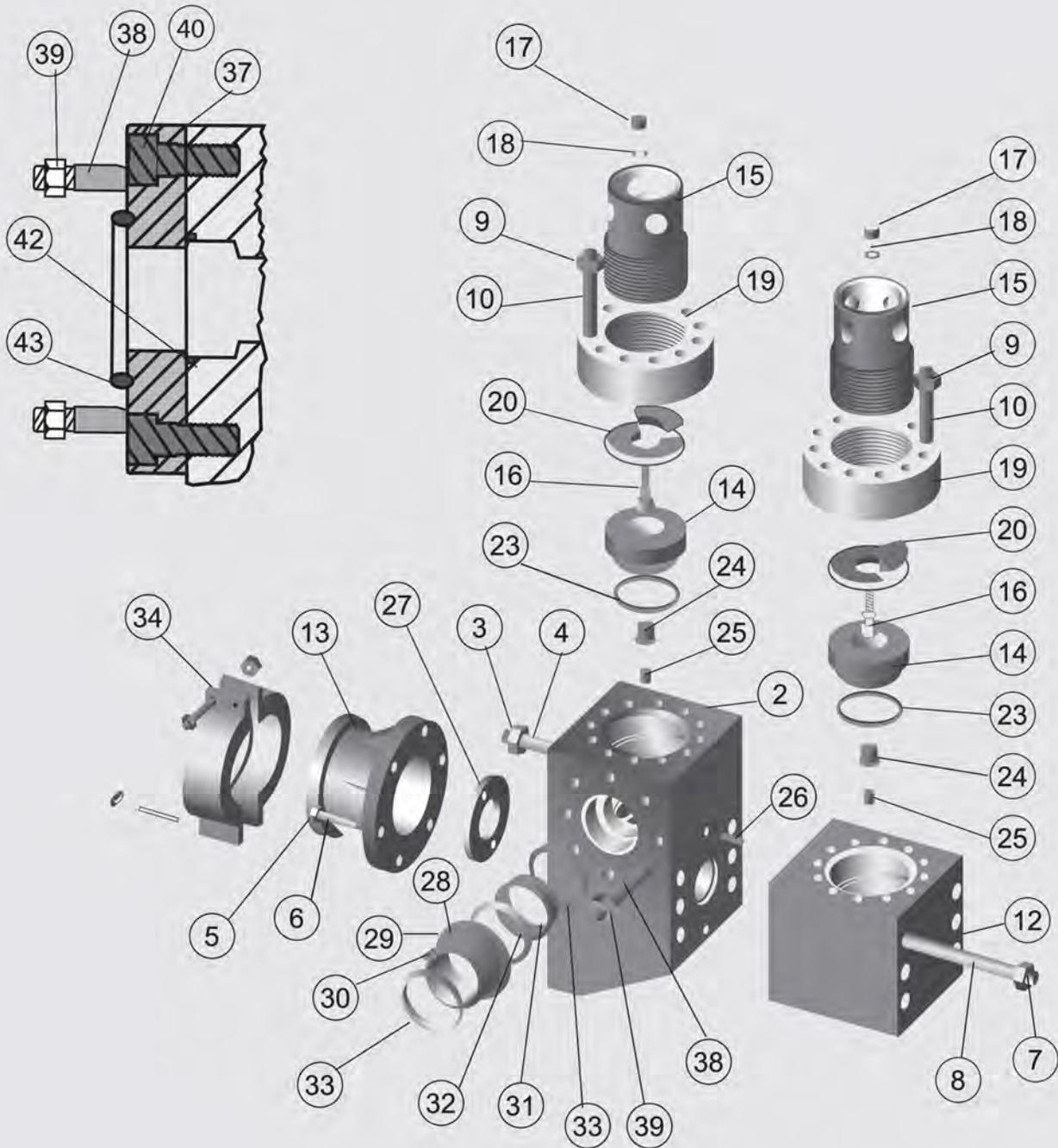
* Not shown



NATIONAL 10-P-130

Item	Part No.	Description	Qty per Pump
1	MK-1290335	Discharge Module, Studded (Included Items 2 – 10)	(3)
2	MK-1290336	Discharge Module, Only	3
3	MK-6300240	Nut – Frame	24
4	MK-2408020	Stud – Frame	24
5	MK-6300160	Nut – Liner Bushing	18
6	MK-2408018	Stud – Liner Bushing	18
7	MK-6300241	Nut – Suction to Discharge Module	18
8	MK-2408034	Stud – Suction to Discharge Module	18
9	MK-6300220	Nut – Threaded Ring	72
10	MK-2408019	Stud – Threaded Ring	72
11	MK-1290338	Suction Module, Studded (Included Items 9, 10, 12)	(3)
12	MK-1290339	Suction Module, Only	3
13	MK-1290165	Bushing – Liner	3
14	MK-1290174	Seal Retainer	6
15	MK-1290307	Valve Cover	6
16	MK-1290178	Screw – Wedge Adjusting	6
17	MK-6300160	Nut – Wedge Adjusting	6
18	MK-1290315	Washer – Wedge Adjusting	6
19	MK-1290308	Threaded Ring	6
20	MK-1290376	Wedge Assembly (Included Items 21 – 22)	6
21	MK-1290179*	Wedge, Set	6
22	MK-1290181*	Spring – Wedge Retaining	6
23	MK-1540126	Gasket – Valve Cover	6
24	MK-1292140	Holder – Valve Guide	6
25	MK-1292141	Insert – Valve Guide	6
26	MK-6511416	Pin, Dowell	6
27	MK-1290357	¹ Plate – Wear	3
28	MK-1290342	Connector – Discharge	2
29	MK-7000305-11	Screw, Hex Head	16
30	MK-7619050	Washer, Lock	16
31	MK-1290343	Adapter – Discharge Connector	2
32	MK-2410031-348	Packing, Rectangular	2
33	MK-2410031-427	Packing, Rectangular	4
34	MK-1290166	Clamp – Liner	3
35	MK-1590051*	Seal – Suction Manifold	3
36	MK-1290348	Spacer – Discharge, Studded (Included Items 37 – 39)	2
37	MK-1290341	Spacer – Discharge	2
38	MK-2402560	Stud – Discharge Spacer	16
39	MK-6300200	Nut – Discharge Spacer	16
40	MK-7006605	Capscrew	16
41	MK-1290344*	Seal – Module, Wear Plate	6
42	MK-1290345	Seal – Discharge Spacer	2
43	MK-6908033	Ring – Oval Joint	2

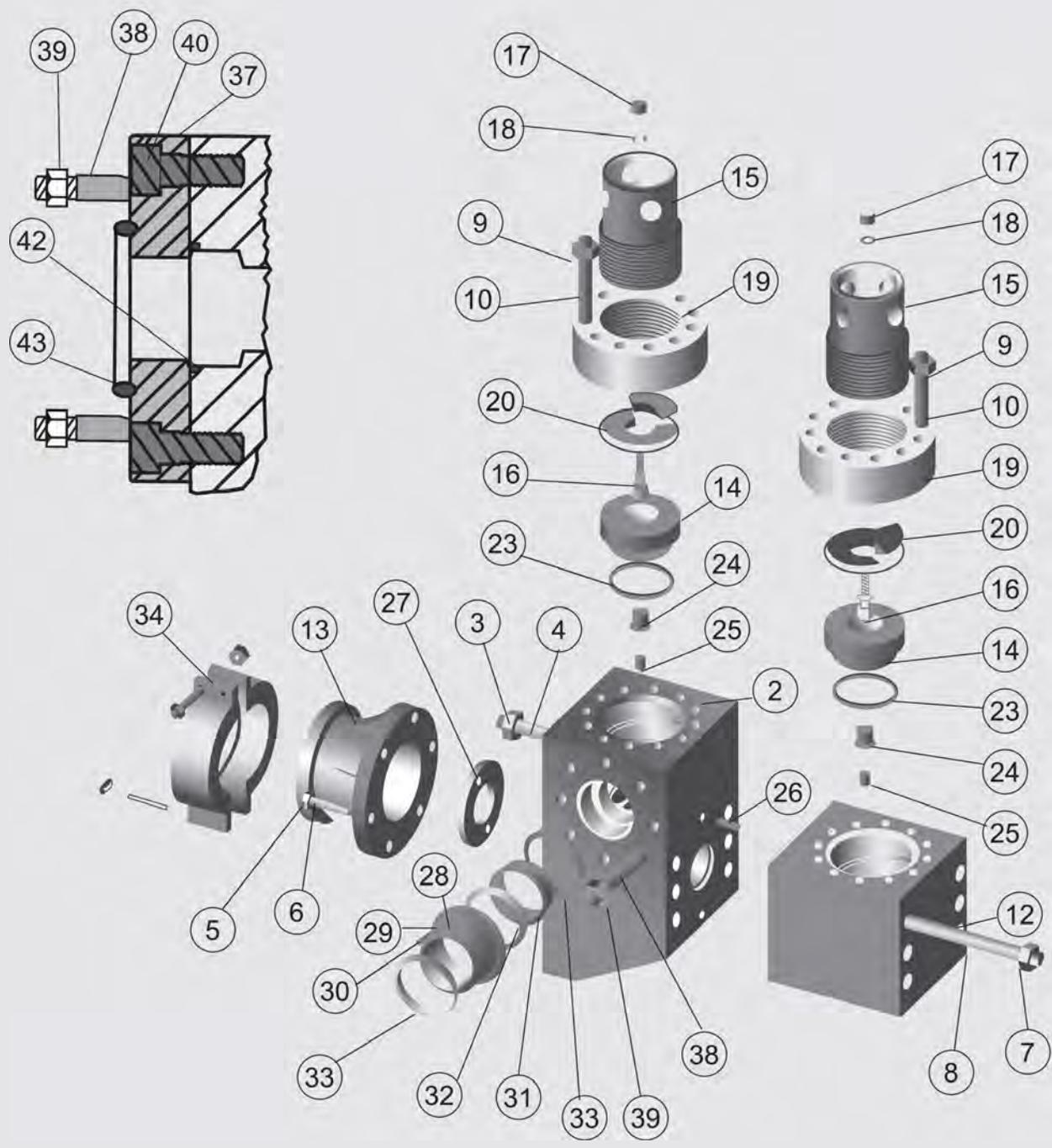
¹Offered in Plain Carbon or Stainless Steel * Not shown



NATIONAL 12-P-160

Item	Part No.	Description	Qty per Pump
1	MK-1292240	Discharge Module, Studded (Included Items 2 – 10)	(3)
2	MK-1292241	Discharge Module, Only	3
3	MK-6300220	Nut – Frame	30
4	MK-2408029	Stud – Frame	30
5	MK-6300180	Nut – Liner Bushing	18
6	MK-2408028	Stud – Liner Bushing	18
7	MK-6300281	Nut – Suction to Discharge Module	18
8	MK-2408033	Stud – Suction to Discharge Module	18
9	MK-6300240	Nut – Threaded Ring	72
10	MK-2408027	Stud – Threaded Ring	72
11	MK-1292243	Suction Module, Studded (Included Items 9, 10, 12)	(3)
12	MK-1292244	Suction Module, Only	3
13	MK-1292165	Bushing – Liner	3
14	MK-1292174	Seal Retainer	6
15	MK-1292172	Valve Cover	6
16	MK-1292178	Screw – Wedge Adjusting	6
17	MK-6300182	Nut – Wedge Adjusting	6
18	MK-1292171	Washer – Wedge Adjusting	6
19	MK-1292176	Thread Ring	6
20	MK-1292268	Wedge Assembly (Included Items 21 – 22)	6
21	MK-1292179*	Wedge, Set	6
22	MK-1292181*	Spring – Wedge Retaining	6
23	MK-1540127	Gasket – Valve Cover	6
24	MK-1292140	Holder – Valve Guide	6
25	MK-1292141	Insert – Valve Guide	6
26	MK-6511416	Pin, Dowell	6
27	MK-1292266	¹ Plate – Wear	3
28	MK-1292252	Connector – Discharge	2
29	MK-7000307-11	Screw, Hex Head	16
30	MK-7619050	Washer, Lock	16
31	MK-1292253	Adapter – Discharge Connector	2
32	MK-2410031-433	Packing, Rectangular	2
33	MK-2410031-437	Packing, Rectangular	4
34	MK-1292166	Clamp – Liner	3
35	MK-1540851*	Seal – Suction Manifold	3
36	MK-1292262	Spacer – Discharge, Studded (Included Items 37 – 39)	2
37	MK-1292246	Spacer – Discharge	2
38	MK-2408015	Stud – Discharge Spacer	16
39	MK-6300240	Nut – Spacer	16
40	MK-7006685*	Capscrew	16
41	MK-1292257*	Seal – Module, Wear Plate	6
42	MK-1292258	Seal – Discharge Spacer	2
43	MK-6908040	Ring, Oval Joint	2

¹Offered in Plain Carbon or Stainless Steel * Not Shown



OILWELL A-850-PT, A-1100-PT, A-1400-PT & A-1700-PT

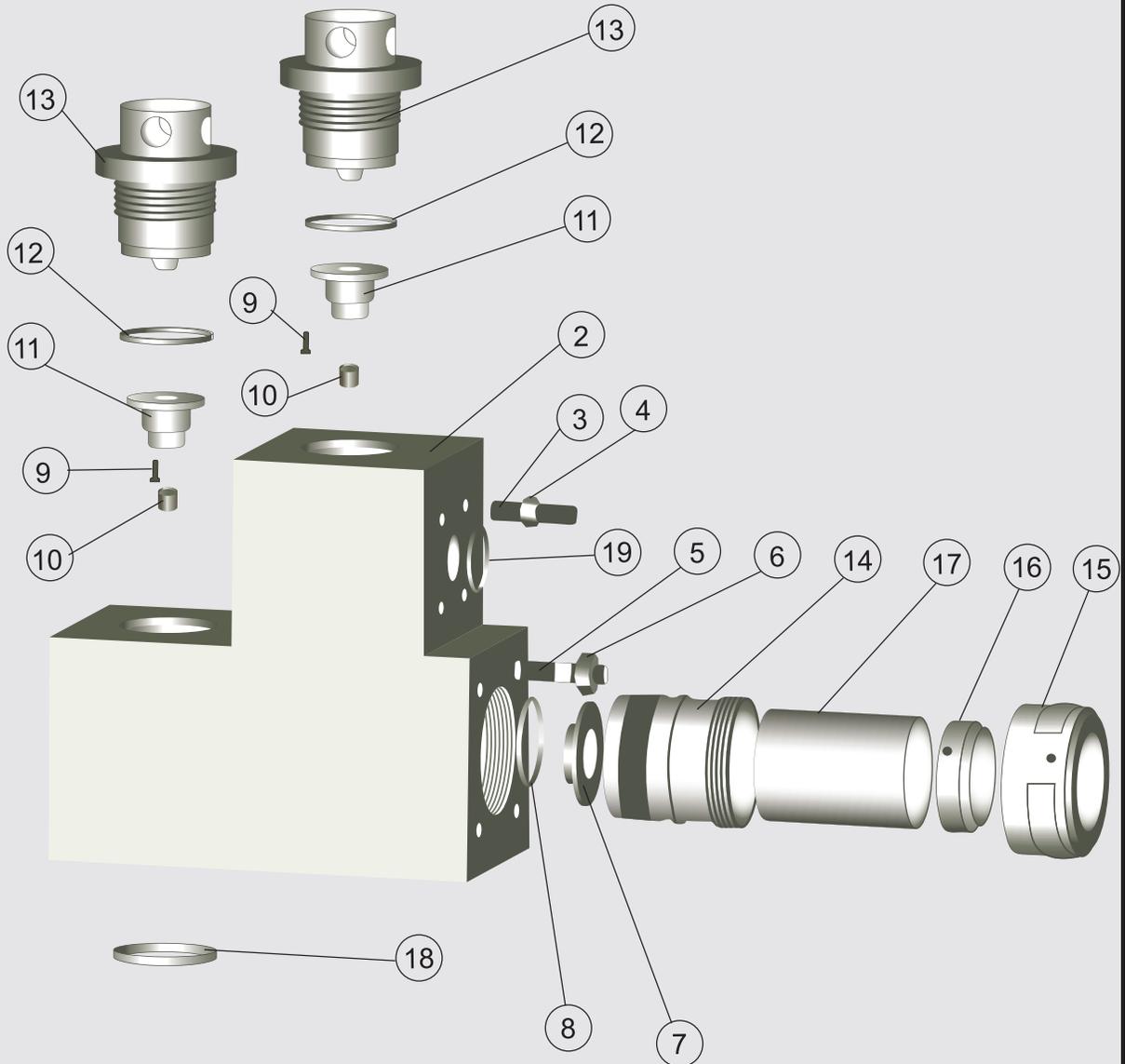
Item	Part No.	Description	Qty per Pump
1	MK-10-300-181	Discharge Module, Studded (Included Items 2 – 6)	(3)
2		Discharge Module, Only	3
3	MK-49-001-292	Stud – Discharge Manifold	12
4	MK-75-511-754	Nut – Discharge Manifold	12
5	MK-49-002-837	Stud – Frame	12
6	MK-75-510-126	Nut – Frame	12
7	MK-10-300-184	¹ Wear Plate – Liner	6
8	MK-20-100-008	Gasket – Liner Wear Plate	6
9	MK-75-632-234	Cap Screw, Self Locking	24
10	MK-20-200-004	Valve Guide Bushing	6
11	MK-10-300-004	Valve Guide	6
12	MK-10-300-011	Gasket – Valve Cover	6
13	MK-10-300-005	Valve Cover	6
14	MK-10-300-183	Liner Adapter	3
15	MK-10-303-092	Nut – Liner Adapter (A850-PT, A1100-PT only)	3
	MK-10-300-182	Nut – Liner Adapter (A1400-PT, A1700-PT only)	3
16	MK-10-300-185	Spacer Ring – Liner	3
17	MK-10-303-091	² Centering Sleeve – Liner (A850-PT, A1100-PT only)	3
	MK-10-300-186	² Centering Sleeve – Liner (A1400-PT, A1700-PT only)	3
18	MK-10-300-201	Seal – Suction Manifold	3
19	MK-99-609-345	Seal – Discharge Manifold	3

¹Offered in Plain Carbon or Stainless Steel



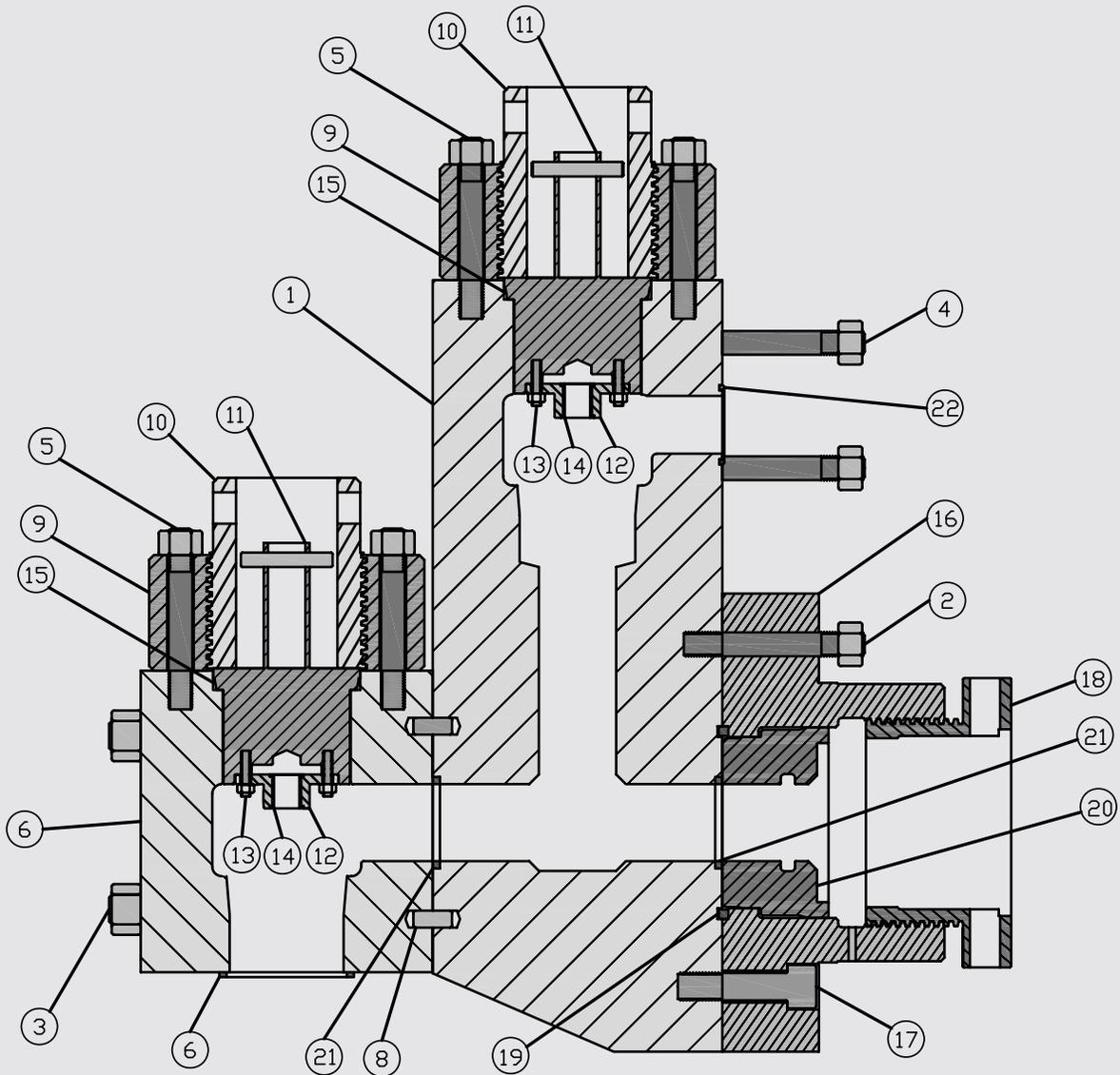
A-850-PT A-1100-PT
A-1400-PT A-1700-PT

FLUID END MODULE
AND ACCESSORIES



“L” SHAPED FB-1300 & FB-1600

Item	Part No.	Description	Qty per Pump
	MK-8490-2A	Complete Assembly	(3)
	MK-8490-1	Fluid Module, Discharge - Studded (included Items 1-5)	(3)
1		Fluid Module - Discharge	3
2	MK-4016-9	Stud w/Nut - Frame	18
3	MK-4017-1	Stud w/Nut - Suction Module	18
4	MK-4017-46	Stud w/Nut - Discharge Manifold	12
5	MK-4015-2	Stud w/Nut - Valve Cover	72
	MK-8490-2	Fluid Module, Suction - Studded (included items 5-6)	(3)
6		Fluid Module - Suction	3
7	MK-7602-1600-61	Seal - Suction Manifold	3
8	MK-8488-5	Dowel Pin	6
9	MK-4475	Threaded Flange	6
10	MK-4575	Screw Gland	6
	MK-4675-2A	Valve Cover Plug Assembly (included items 11-14)	(6)
11	MK-4675-2	Plug - Valve Cover	6
12	MK-4775-2	Valve Guide	6
13	MK-4016-99	Stud w/Nut - Valve Guide	16
14	MK-4700-I	Insert - Valve Guide	6
15	MK-P129	Seal - Valve Cover Plug	6
16	MK-6490-3	Liner Retainer Flange	3
17	MK-4017-36	Capscrew - Liner Retainer	24
18	MK-6590-1	Nut - Liner Retainer	3
19	MK-8422-3	Pilot Ring - Liner Retainer	3
20	MK-8490-3	Plate - Wear	3
21	MK-2988	Seal - Module and Wear Plate	6
22	MK-7602-1600-25	Seal - Discharge Manifold	3

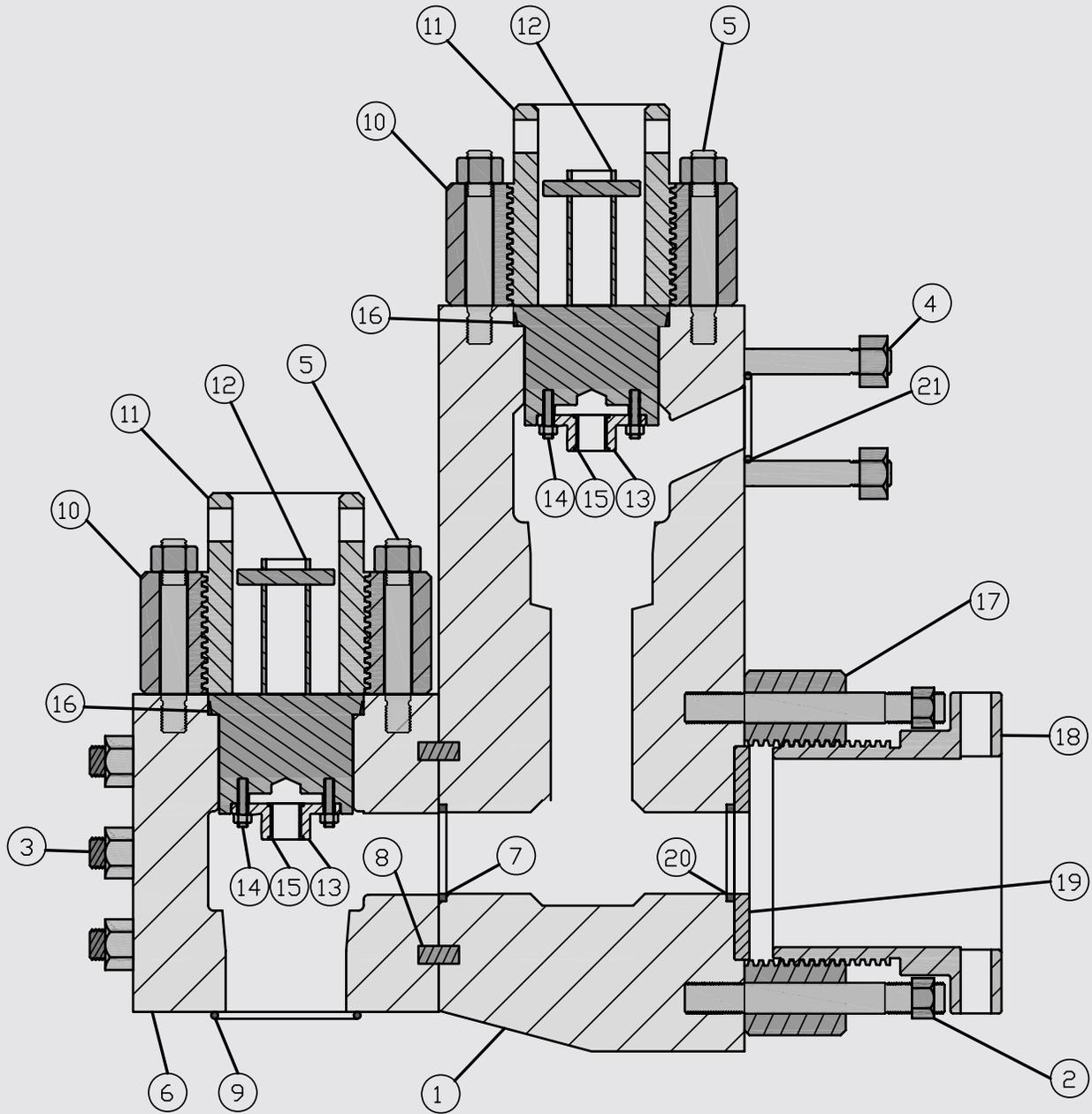


“L” SHAPED T-1300 & T-1600

Item	Part No.	Description	Qty per Pump
	MK-8407-7A	Complete Assembly	(3)
	MK-8407-7	Fluid Module, Discharge - Studded (included items 1-5)	(3)
1		Fluid Module - Discharge	3
2	MK-4018-68	Stud w/Nut - Frame, Liner Retainer	24
3	MK-4016-97	Stud w/Nut - Suction Module	24
4	MK-4017-50	Stud w/Nut - Discharge Manifold	12
5	MK-4015-2	Stud w/Nut - Valve Cover	48
	MK-8407-11	Fluid Module, Suction - Studded (included items 5-6)	(3)
6		Fluid Module - Suction	3
7	MK-2988	Seal - Suction Module	3
8	MK-8488-5	Dowel Pin	6
9	MK-IO-507	Seal - Suction Manifold	3
10	MK-4475	Threaded Flange	3
11	MK-4575	Screw Gland	3
	MK-4675-2A	Valve Cover Plug Assembly (included items 12-15)	(3)
12	MK-4675-2	Plug - Valve Cover	3
13	MK-4775-2	Valve Guide	3
14	MK-4016-99	Stud w/Nut - Valve Guide	12
15	MK-4700-I	Insert - Valve Guide	3
16	MK-P129	Seal - Valve Cover Plug	3
17	MK-6407	Liner Retainer Flange	3
18	MK-6507	Nut - Liner Retainer	3
19	MK-8407-10	Plate - Wear	3
20	MK-2988	Seal - Wear Plate	3
21	MK-IO-548	Seal - Discharge Manifold	3

"L" Shaped T-1300 T-1600

FLUID END MODULE
AND ACCESSORIES

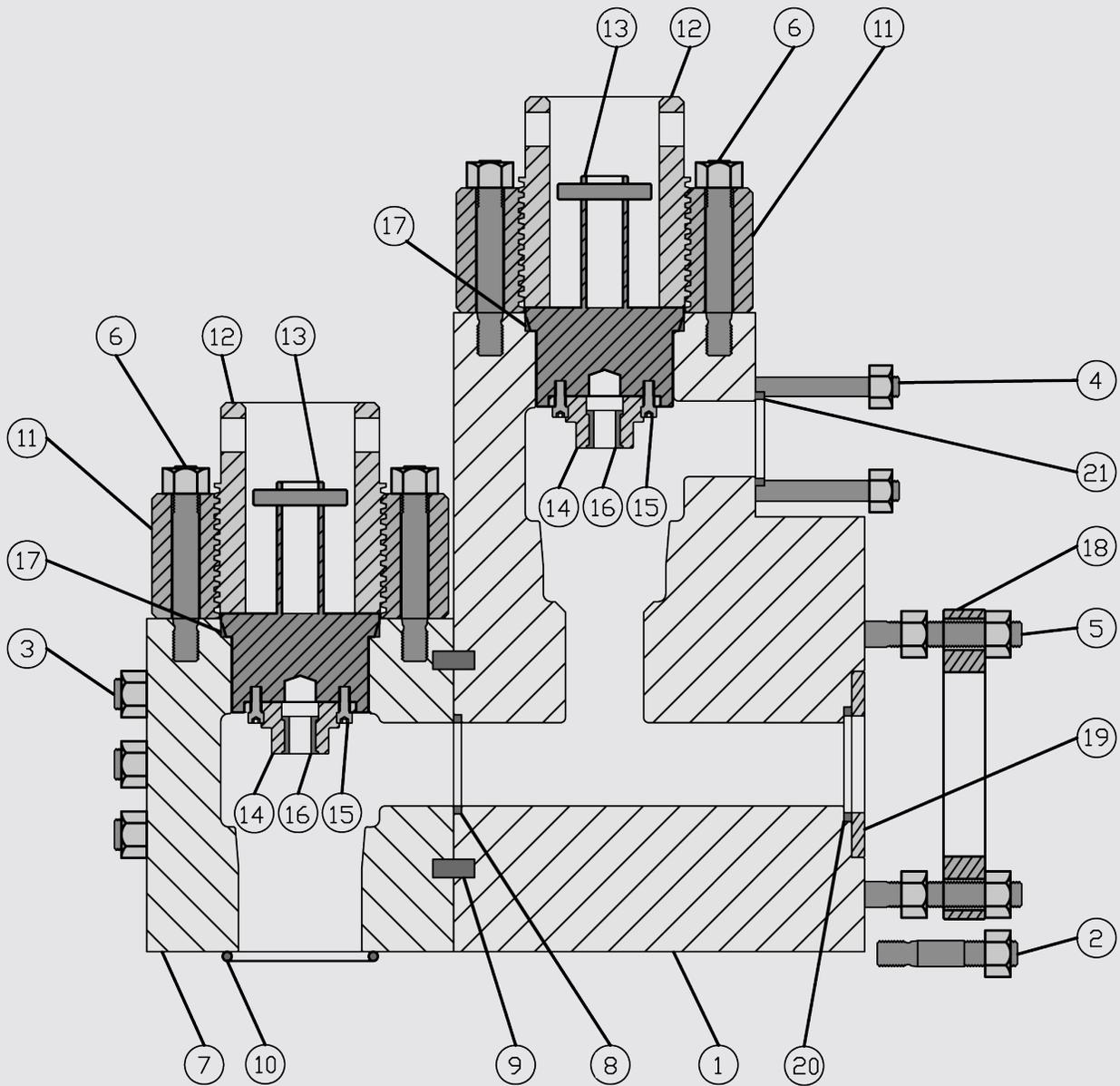


“L” SHAPED PZ-10 & PZ-11

Item	Part No.	Description	Qty per Pump
	MK-8477-A	Complete Assembly	(3)
	MK-8477-1	Fluid Module, Discharge - Studded (included items 1-6)	(3)
1		Fluid Module - Discharge	3
2	MK-4018-35	Stud w/Nut - Frame	24
3	MK-4016-97	Stud w/Nut - Suction Module	18
4	MK-4017-5	Stud w/Nut - Discharge Manifold	12
5	MK-4018-34	Stud w/2 Nut - Liner Retainer	24
6	MK-4015-2	Stud w/Nut - Valve Cover	72
	MK-8477-2	Fluid Module, Suction - Studded (included items 6-7)	(3)
7		Fluid Module - Suction	3
8	MK-2988	Seal - Suction Module	3
9	MK-8488-5	Dowel Pin	6
10	MK-25BE41	Seal - Suction Manifold	3
11	MK-4475	Threaded Flange	6
12	MK-4575	Screw Gland	6
	MK-4675-1A	Valve Cover Plug Assembly (included items 13-16)	(6)
13	MK-4675-1	Plug - Valve Cover	6
14	MK-4775	Valve Guide	6
15	MK-4016-99	Stud w/Nut - Valve Guide	24
16	MK-4700-I	Insert - Valve Guide	6
17	MK-P129	Seal - Valve Cover Plug	6
18	MK-6477	Liner Retainer Flange	3
19	MK-8477-3	Plate - Wear	3
20	MK-2930-08	Seal - Wear Plate	3
21	MK-25AL35	Seal - Discharge Manifold	3

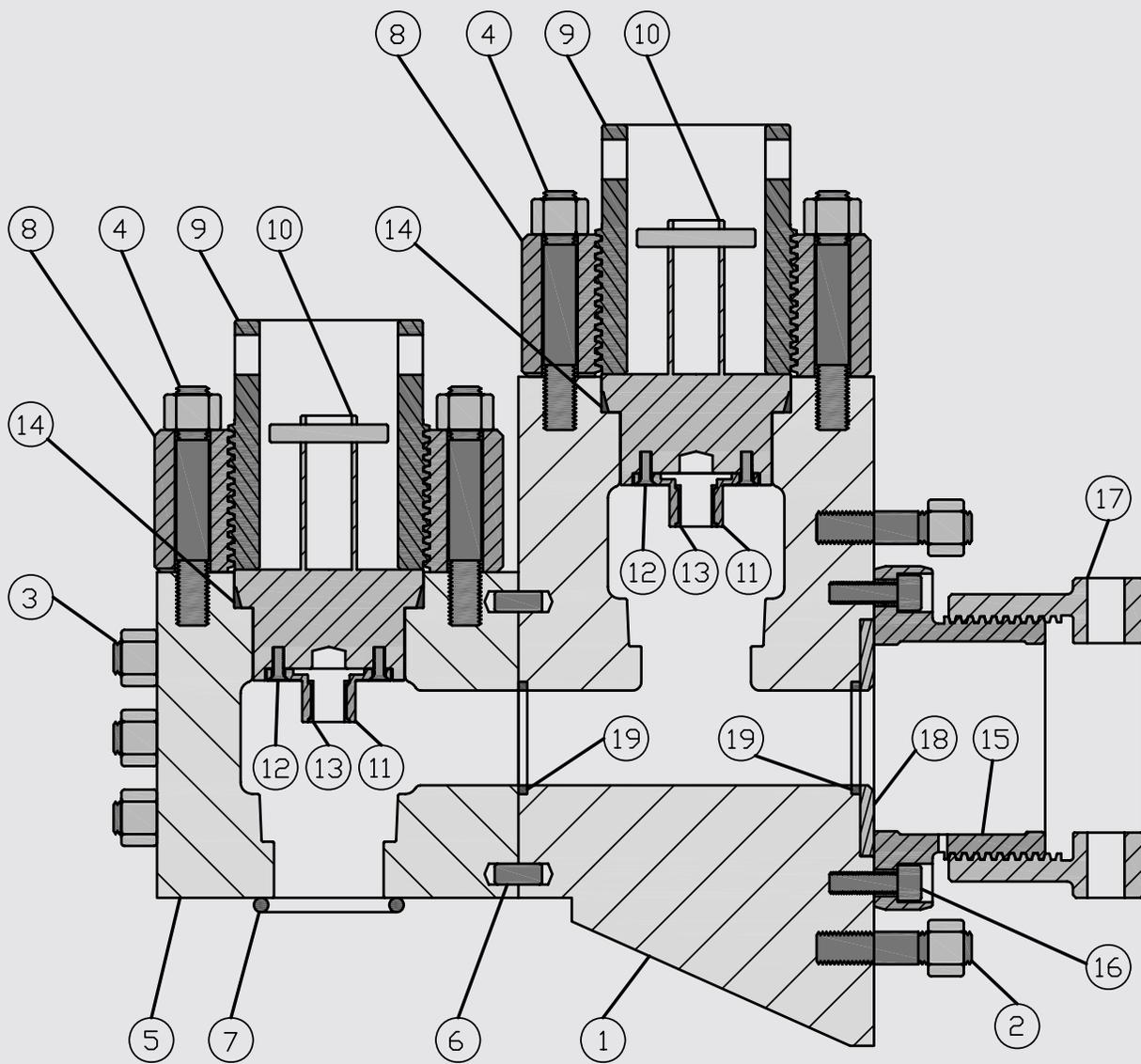
"L" Shaped PZ-10 PZ-11

FLUID END MODULE
AND ACCESSORIES



“L” SHAPED 10-P-130

Item	Part No.	Description	Qty per Pump
	MK-8467-A	Complete Assembly	(3)
	MK-8467-1	Fluid Module, Discharge - Studded (included Items 1-4)	(3)
1		Fluid Module - Discharge	3
2	MK-4015-96	Stud w/Nut - Frame	30
3	MK-4017-1	Stud w/Nut - Suction Module	18
4	MK-4015-5	Stud w/Nut - Valve Cover	72
	MK-8467-2	Fluid Module, Suction - Studded (included items 4-5)	(3)
5		Fluid Module - Suction	3
6	MK-8488-5	Dowel Pin	6
7	MK-1590051	Seal - Suction Manifold	3
8	MK-4467	Threaded Flange	6
9	MK-4567	Screw Gland	6
	MK-4667-A	Valve Cover Plug Assembly (included items 10-13)	(6)
10	MK-4667	Plug - Valve Cover	6
11	MK-4760-3	Valve Guide	6
12	MK-4016-98	Screw - Valve Guide	16
13	MK-4700-I	Insert - Valve Guide	6
14	MK-P128	Seal - Valve Cover Plug	6
15	MK-6495	Liner Retainer Flange	3
16	MK-4017-8	Capscrew - Liner Retainer	18
17	MK-6595	Nut - Liner Retainer	3
18	MK-8467-3	Plate - Wear	3
19	MK-2988	Seal - Module and Wear Plate	6

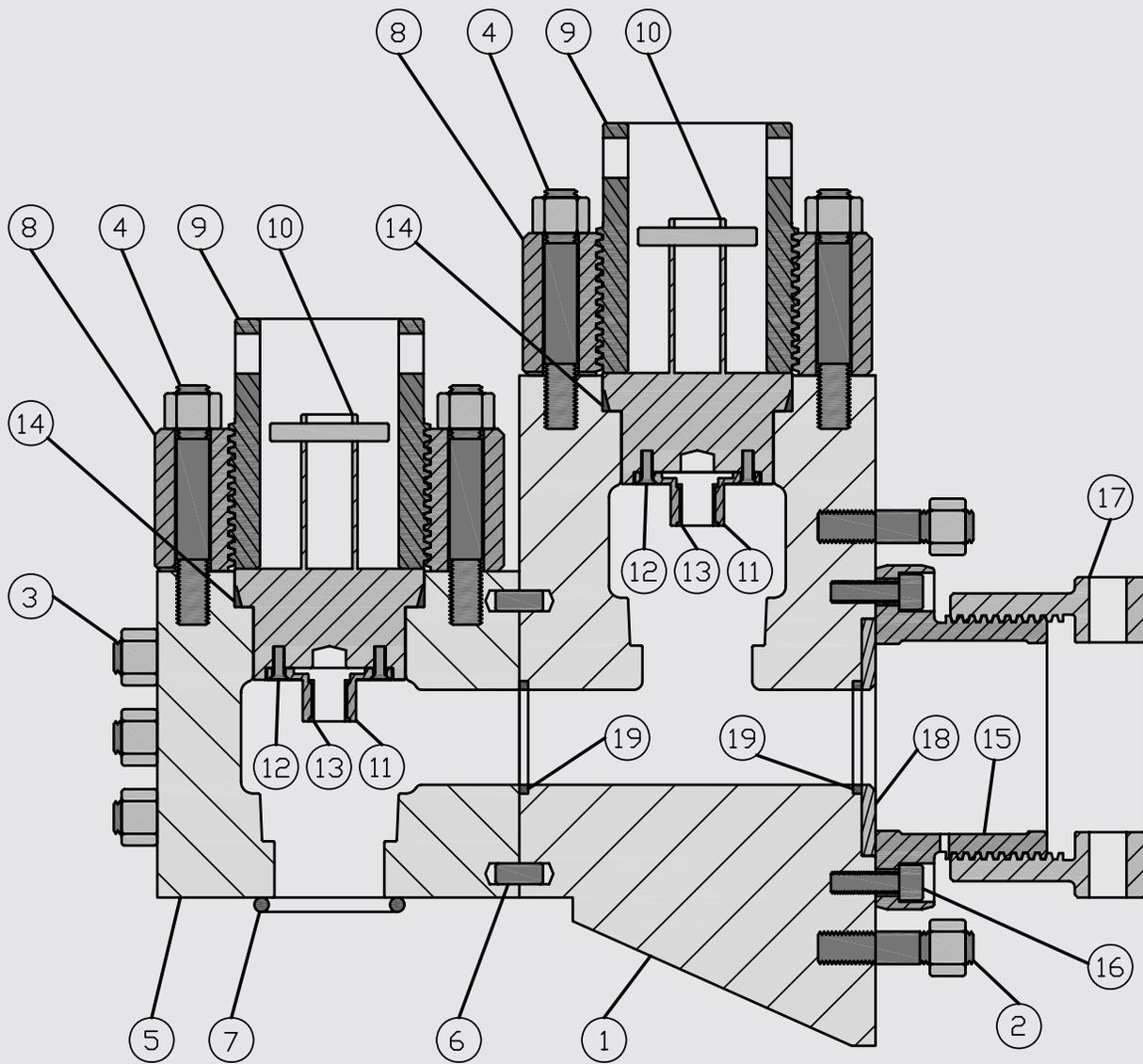


“L” SHAPED 12-P-160 New Style

Item	Part No.	Description	Qty per Pump
	MK-8476-4A	Complete Assembly	(3)
	MK-8476-5	Fluid Module, Discharge - Studded (included Items 1-4)	(3)
1		Fluid Module - Discharge	3
2	MK-4015-95	Stud w/Nut - Frame	30
3	MK-4018-17	Stud w/Nut - Suction Module	18
4	MK-4015-54	Stud w/Nut - Valve Cover	72
	MK-8476-6	Fluid Module, Suction - Studded (included items 4-5)	(3)
5		Fluid Module - Suction	3
6	MK-8488-5	Dowel Pin	6
7	MK-1540851	Seal - Suction Manifold	3
8	MK-4476	Threaded Flange	6
9	MK-4597	Screw Gland	6
	MK-4676-6A	Valve Cover Plug Assembly (included items 10-13)	(6)
10	MK-4676-6	Plug - Valve Cover	6
11	MK-4776	Valve Guide	6
12	MK-4016-98	Screw - Valve Guide	24
13	MK-4700-I	Insert - Valve Guide	6
14	MK-P119	Seal - Valve Cover Plug	6
15	MK-6476	Liner Retainer Flange	3
16	MK-4017-65	Capscrew - Liner Retainer	18
17	MK-6576	Nut - Liner Retainer	3
18	MK-8476-3	Plate - Wear	3
19	MK-2988	Seal - Module and Wear Plate	6

"L" Shaped 12-P-160 New Style

FLUID END MODULE
AND ACCESSORIES



“L” SHAPED A-850-PT, A-1100-PT, A-1400-PT & A-1700-PT

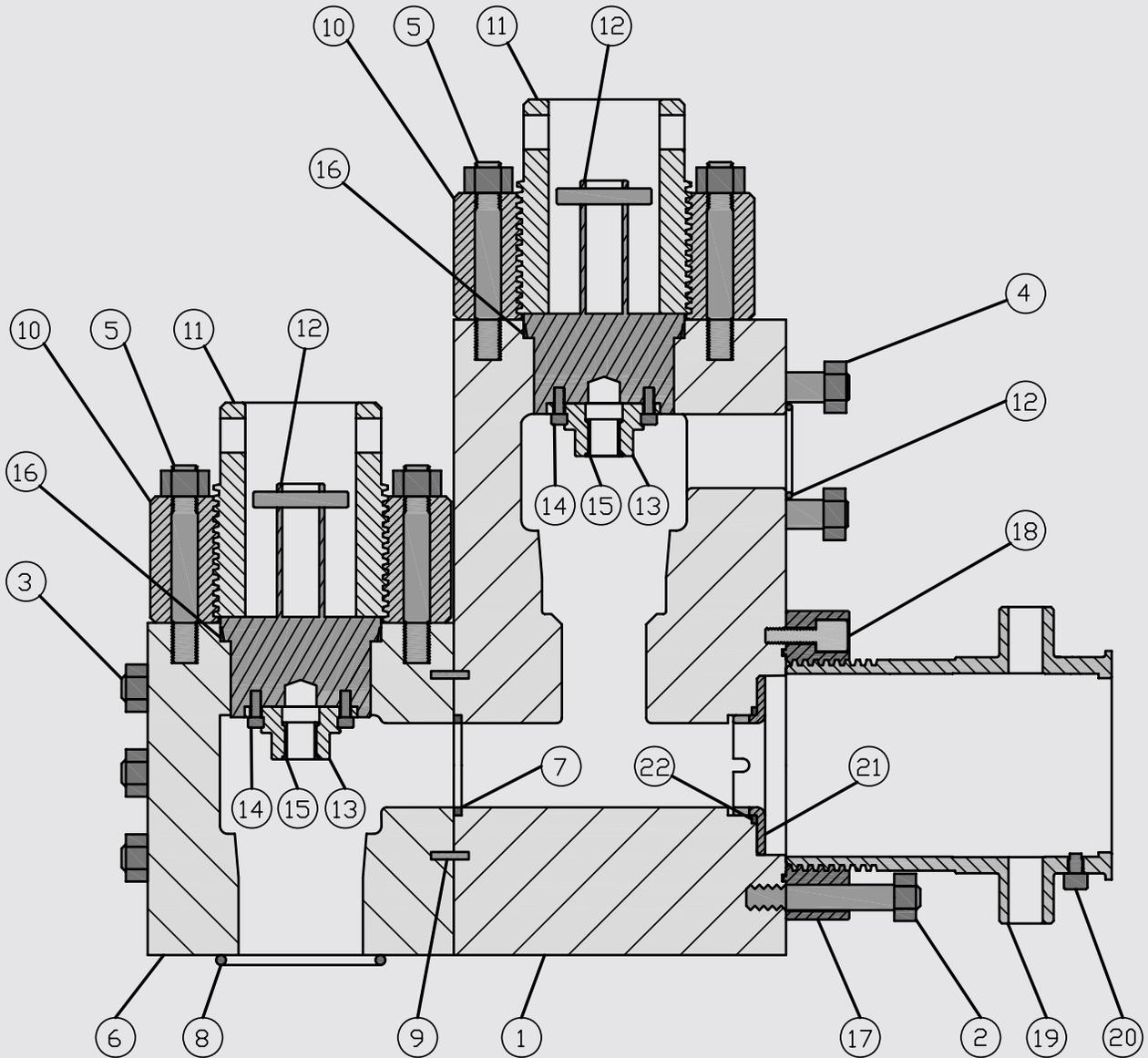
Item	Part No.	Description	Qty per Pump
	MK-8487-A	Complete Assembly (A-850-PT, A-1100-PT)	(3)
	MK-8488-1A	Complete Assembly (A-1400-PT, A-1700-PT)	(3)
	MK-8488-1	Fluid Module, Discharge - Studded (included items 1-5)	(3)
1		Fluid Module - Discharge	3
2	MK-4016-96	Stud w/Nut - Frame	12
3	MK-4016-97	Stud w/Nut - Suction Module	18
4	MK-4016-3	Stud w/Nut - Discharge Manifold	12
5	MK-4015-2	Stud w/Nut - Valve Cover	72
	MK-8488-2	Fluid Module, Suction - Studded (included items 5-6)	(3)
6		Fluid Module - Suction	3
7	MK-2988	Seal - Module	3
8	MK-10-300-201	Seal - Suction Manifold	3
9	MK-8488-5	Dowel Pin	6
10	MK-4475	Threaded Flange	6
11	MK-4575	Screw Gland	6
	MK-4675-1A	Valve Cover Plug Assembly (included items 12-15)	(6)
12	MK-4675-1	Plug - Valve Cover	6
13	MK-4775	Valve Guide	6
14	MK-4018-88	Screw - Valve Guide	12
15	MK-4700-I	Insert - Valve Guide	6
16	MK-P129	Seal - Valve Cover Plug	3
17	MK-6488-1	Liner Retainer Flange	3
18	MK-4017-4	Capscrew - Liner Retainer	24
19	MK-6587-1	Nut - Liner Retainer (A-850-PT, A-1100-PT ONLY Large OD Liner, MK-0289-XX)	3
	MK-6588-1	Nut - Liner Retainer (A-1400-PT, A-1700-PT ONLY Large OD Liner, MK-0284-XX)	3
20	MK-8488-7	Set Screw - Liner Retainer	9
21	MK-8488-4	Plate - Wear	3
22	MK-2974-1	Seal - Wear Plate	3



"L" Shaped

**A-850-PT A-1100-PT
A-1400-PT A-1700-PT**

FLUID END MODULE
AND ACCESSORIES

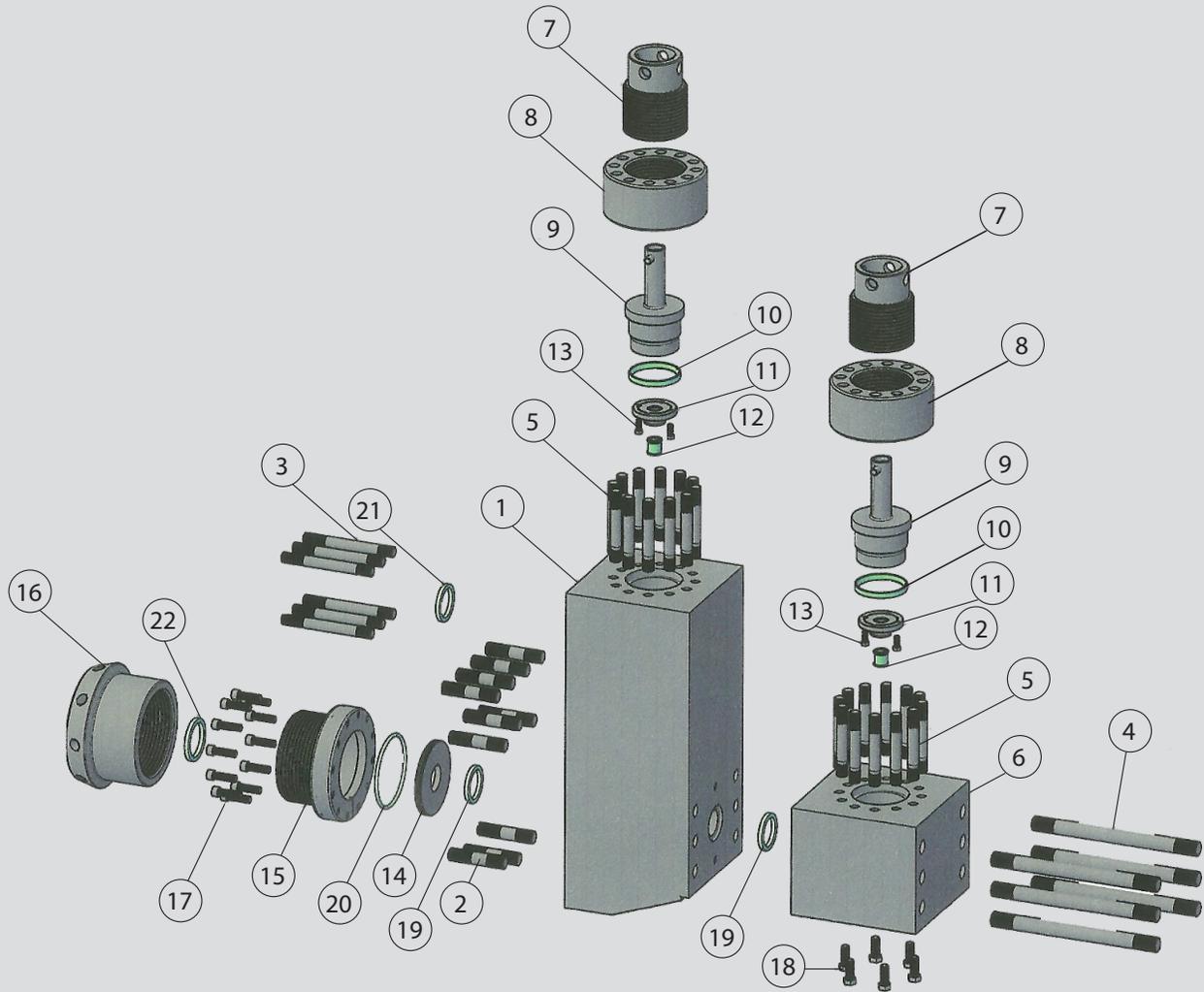


SW STYLE BOMCO F-1600 7500 PSI

Item	Part No.	Description	Qty per Pump
	MK-8404-25A	Fluid End Assembly Complete	3
	MK-8404-27	Discharge Module - Studded (Includes Items 1-5)	
1	MK-8404-27U	Discharge Module	3
2	MK-4017-33	Power End Stud c/w Nut	30
3	MK-4019-60	Discharge Manifold Stud c/w Nut	18
4	MK-4019-61	Suction Module Stud c/w Nut	18
5	MK-4015-2	Valve Cover Stud c/w Nut	72
	MK-8404-26	Suction Module - Studded (Includes Items 5-6)	
6	MK-8404-26U	Suction Module	3
7	MK-4588-25	Screw Gland	6
8	MK-4488-25	Valve Cover Flange	6
	MK-4690-25A	Valve Cover Plug Assembly (Includes Items 9-13)	
9	MK-4690-25	Valve Cover Plug	6
10	MK-P115	Valve Cover Plug Seal	6
11	MK-4788-25	Valve Guide	6
12	MK-4700-I	Valve Guide Bushing	6
13	MK-4018-18	Valve Guide Screw	12
14	MK-8490-28	Liner Wear Plate	3
15	MK-6490-25	Liner Retainer Flange	3
16	MK-6590-25	Liner Retainer Nut	3
17	MK-4019-51	Liner Retainer Capscrew	36
18	MK-4018-19	Suction Manifold Capscrew	18
19	MK-2988	Module/Wear Plate Seal	6
20	MK-568-443	Wear Plate O-Ring	3
21	MK-2988	Discharge Manifold Seal	3
		NOT SHOWN	
	MK-6316020100	Suction Manifold	1
	MK-8376-25	Discharge Manifold	1

SW STYLE BOMCO F-1600 7500 PSI

FLUID END MODULE
AND ACCESSORIES

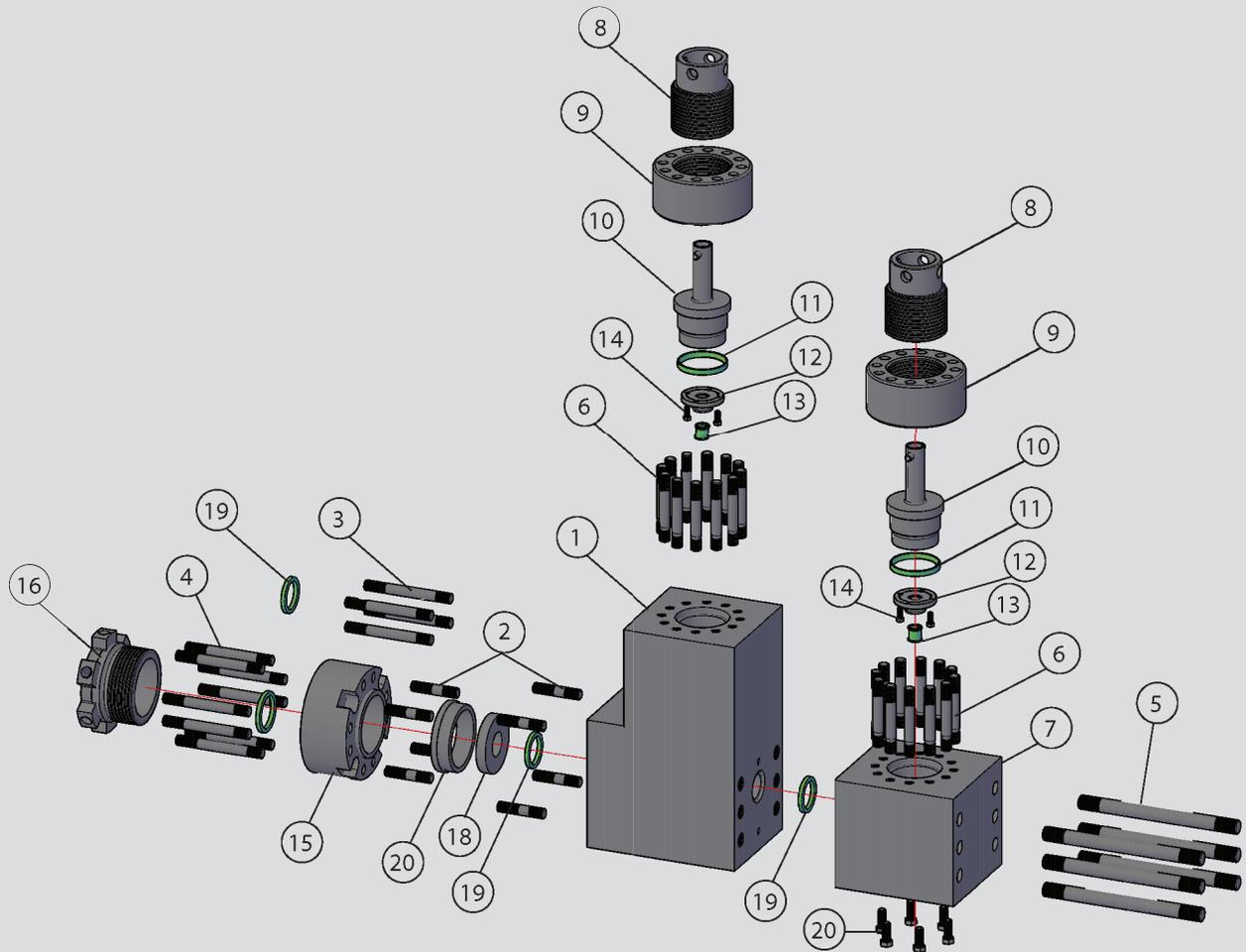


SW Style Gardner Denver PZ-11 7500 PSI

Item	Part No.	Description	Qty per Pump
	MK-8477-25A	Fluid End Assembly Complete	3
	MK-8477-27	Discharge Module - Studed (Includes Items 1-6)	
1	MK-8477-27U	Discharge Module	3
2	MK-4019-46	Power End Stud c/w Nut	24
3	MK-4019-45	Discharge Manifold Stud c/w Nut	12
4	MK-4019-45	Liner Retainer Stud c/w Nut	24
5	MK-4019-44	Suction Module Stud c/w Nut	18
6	MK-4015-2	Valve Cover Stud c/w Nut	72
	MK-8477-26	Suction Module - Studed (Includes Items 6-7)	
7	MK-8477-26U	Suction Module	3
8	MK-4588-25	Screw Gland	6
9	MK-4488-25	Valve Cover Flange	6
	MK-4688-25A	Valve Cover Plug Assy (Includes Items 10-14)	
10	MK-4688-25	Valve Cover Plug	6
11	MK-P115	Valve Cover Plug Seal	6
12	MK-4788-25R	Valve Guide	6
13	MK-4700-I	Valve Guide Bushing	16
14	MK-4018-18	Valve Guide Screw	12
15	MK-6477-25	Liner Retainer Flange	3
16	MK-6577-25	Liner Retainer Nut	3
17	MK-8477-29	Alignment Ring	3
18	MK-8477-30	Liner Wearplate	3
19	MK-2988	Wearplate, Module, Discharge Manifold Seal	9
20	MK-4017-77	Suction Manifold Capscrew	24
		NOT SHOWN	
	MK-8577-25	Suction Manifold	1
	MK-8377-27	Discharge Manifold	1

**SW STYLE
GARDNER DENVER PZ-11
7500 PSI**

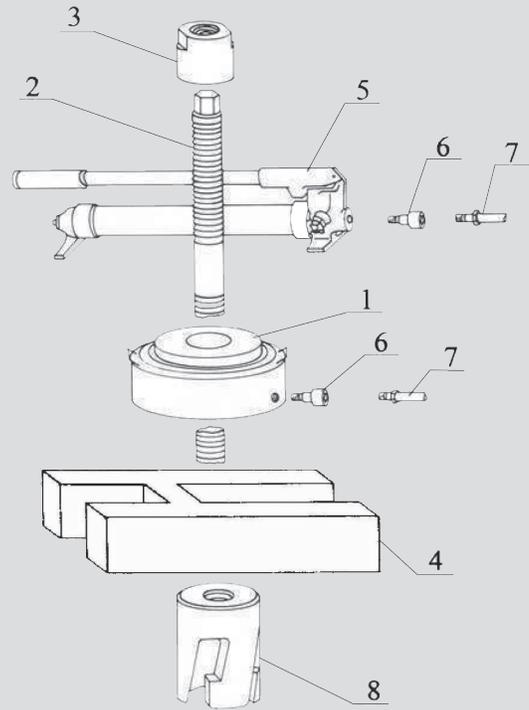
FLUID END MODULE
AND ACCESSORIES



HYDRAULIC VALVE SEAT PULLER PARTS & OPERATING INSTRUCTIONS

- 1 Insert head into pot and lock into seat.
Screw stem into head.
- 2 Place H bar over stem and center
over pot bore. Place jack
over stem and on H bar.
- 3 Tighten stem nut onto stem until all slack
is removed. The jack may be strapped
down to eliminate jumping action when
seat breaks loose.
- 4 Attach hose to pump and jack then pump
handle untill seat breaks loose.

Manual Pump(5) Max 10,000 PSI
Hydraulic Jack(1) 170 ton



No.	Part Number	Description
	MK-1700	Valve Seat Puller Assembly complete w/ metal case
1	MK-1701	Hydraulic Jack
	MK-1717	Hydraulic Jack Seal Repair Kit
2	MK-1702	Center Stem
3	MK-1703	Center Stem Nut
4	MK-1704	Puller H Bar
5	MK-1708	Hydraulic Pump
	MK-1718	Hydraulic Pump Repair Kit
6	MK-1713	Gauge Coupler
7	MK-1707	Hydraulic Hose



Pulsation Dampeners and Strainer Blocks



	Bottom Connection	Capacity	Max Pressure	WT
K20	4" API 5000 R44 RJ	20	5000	2145
K10	4" API 5000 R44 RJ	10	5000	950
K5	2" ANSI 1500 Raised Face	5	3000	230
PD55	4" API 5000 R44 RJ	20	5000	1373
PD45	4" API 5000 R44 RJ	12	5000	918

CA122 Liner Wash Pump	
Part Number	Description
MK-CA122	CA122 Liner Wash Pump



GATE VALVES

MUD KING PRODUCTS GATE VALVES

WARRANTY

MUD KING: warrants its products to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from the date of shipment. The liability for any defects shall be limited to the repair or replacement of such products, or at the option of MUD KING the refunding of purchase price. This warranty is expressly in lieu of all other warranties and representations, expressed or implied, and all other obligations or liabilities on the part of **MUD KING**, which shall not be liable for consequential damages for any breach of warranty. Any controversy or dispute arising out of the sale of **MUD KING** products shall be determined in accordance with the laws of the State of Texas.

MKP, INC. is in no way affiliated with any O.E.M. Names and Part Numbers are for identification purposes only and are not trademarks or trade names used by **MKP, INC.**

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.

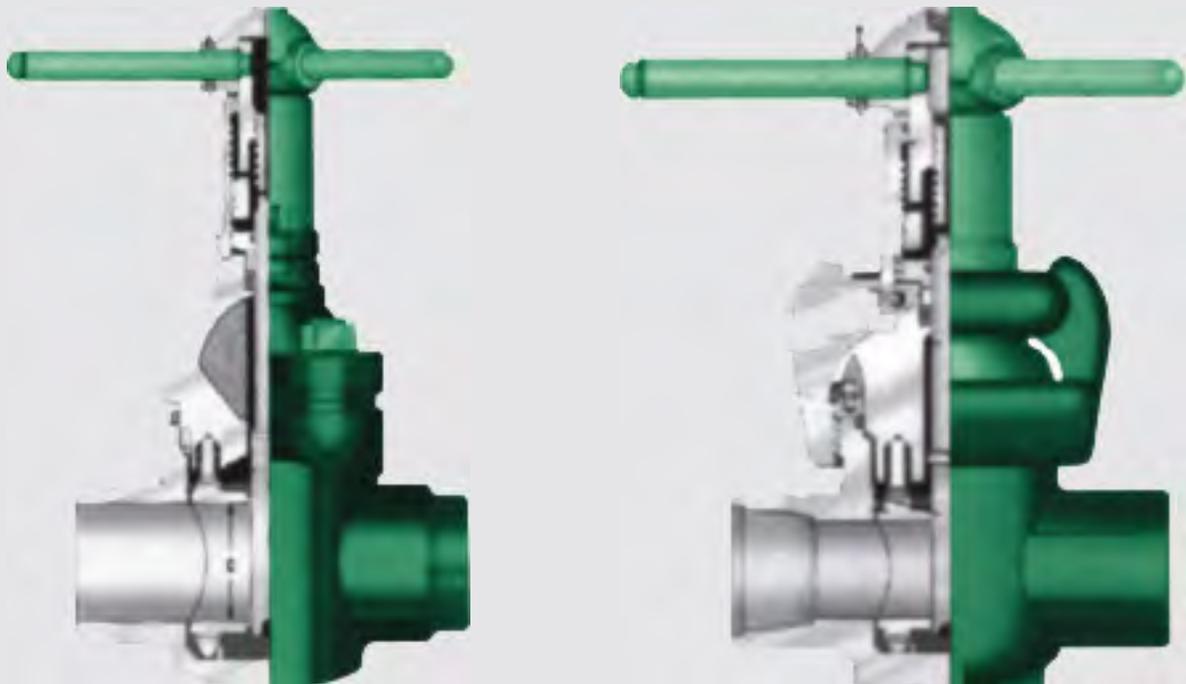
The **MKP Valve** conforms to the standard flange dimensions and pressure rating of 5000 and 7500 PSI working pressure, and temperature service up to 400°F

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

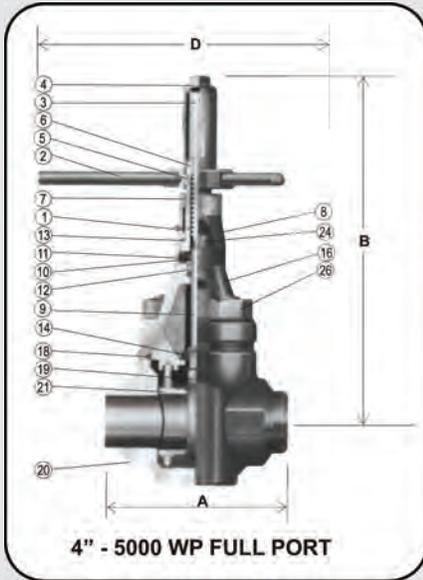
Gate Valve rating must be selected to match the piping system in which the valve will be installed. Tabulated below are working pressures at 100° F for ASTM A-106 Grade B pipe in sizes corresponding to MKP gate valves.

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

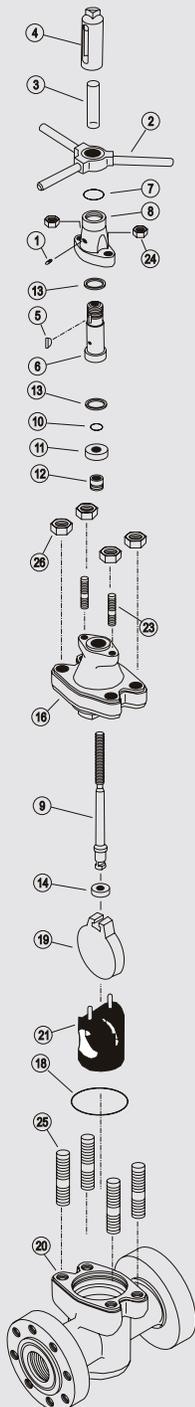
STANDARD MATERIALS: Cast Steel Body & Bonnet; Buna N Seat & Seals; Duct Iron Seat Inserts; 316 SS Stem; Steel Gets		
FULL PORT		4"
FIGURE NUMBER		4 - 5000
SCREWED END	Base Part No.	M7420
	Weight, Lbs.	210
WELD END	Base Part No.	M7420
	Weight, Lbs.	210
		Weld End valves furnished for Sch. 80, XXH and Sch. 160 on 5000 WP
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



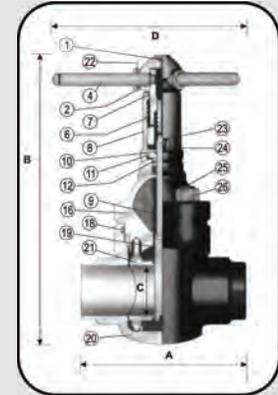
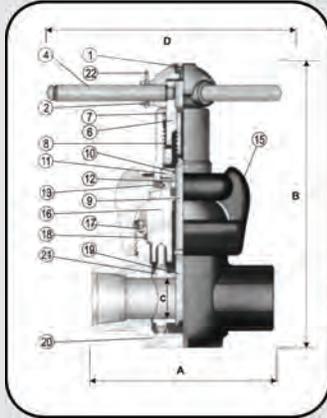
5000 WP

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.



Screwed 0 – LP 1 NUE
 Weld 1 – Sch. 80 2 – xxxH 5 – Sch. 160
 Flanged 2 – 5000 RTJ

END CONN
 BODY CONFTG 4 - Screwed 5 - Weld 7 - Flanged

STEM MATL. 2 - 303 ss 8 - 316 ss

GATE MATL. 1 - Steel 8 - 316 ss

INSERT 1 - Steel 8 - 316 ss

SEAT 1 - Buna N 2 - Viton

COAT G 0 - Uncoated
 1 - MUDKING 10

BASE
 PART NO.

MXXXX - X X X X X X X

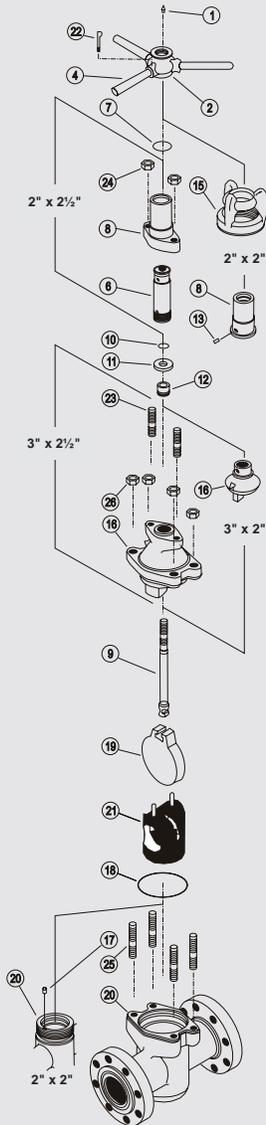
STANDARD ASSEMBLIES & WEIGHTS

STANDARD MATERIALS: Cast Steel Body & Bonnet; Buns N Seat & Seals; Duct Iron Seat Inserts; 316 SS Stem; Steel Gets			
FULL PORT		2"	3"
	FIGURE NUMBER	2-5000	3-5000
SCREWED END	Base Part No.	M1028	M1047
	Weight, Lbs.	61	140
Screwed End valves furnished for line pipe unless otherwise specified ... EUE 8 round on 2" valves; NUE 10 round on 3", NUE 8 round on 4"			
WELD END	Base Part No.	M1031	M1056
	Weight, Lbs.	61	140
Weld End valves furnished for Sch. 80 on 2000 wp valves; Sch. 80 and Sch. 160 on 3000 wp; Sch. 80, XXH and Sch. 169 on 5000 wp			
GROOVED END	Base Part No.	****	****
	Weight, Lbs.	****	****
Grooved End valves furnished for Sch. 80 pipe			
RTJ FLANGED END	Base Part No.	M1025	M1038
	Weight, Lbs.	110	241
RTJ Flanges comply with API Std. 6A, 1974			

REGULAR PORT	2½" x 2"
FIGURE NUMBER	25-5000R
WELD END Base Part No.	M1109
Weight, Lbs.	61

Pressure Rating & Size	5000 PSI WP 10,000 PSI TEST	
	2"	3"
DIMENSIONS, INCHES		
A. SCREWED, GROOVED & WELD - FULL PORT - REGULAR PORT	9	11
	****	****
FLANGED – RTJ	12 1/8	15 5/8
B. (OPEN) – FULL PORT - REGULAR PORT	13	18
	****	****
C. (SEAT BORE) – FULL PORT REGULAR PORT	2	3
	****	****
D. FULL PORT REGULAR PORT	14	19
	****	****
F(FLANGE DIAMETER)	8 1/2	10 1/2
FLANGE BOLTS NO. SIZE	8 7/8	8 - 1 1/8
RING NUMBER (RTJ)	R24	R35

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

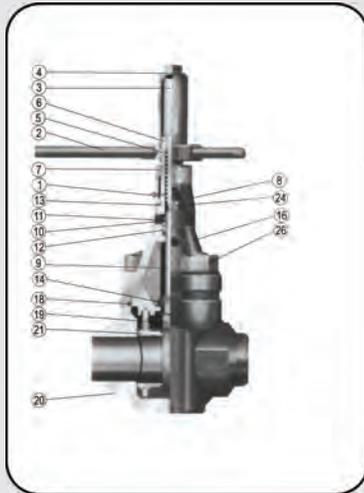
Caution: Test valve assembly, including replacement body, before installation and use.
Failure to do so may result in leakage or property damage or personal injury.

MATERIAL SPECIFICATIONS

SIZE	BODY			BONNET	COUP- LING	GATE	STEM	STUDS	SEAT INSERT	SEAT ELAS- TOMER
	S & G	W	F							
2" x 2"	●	●	●	●	●	●	●	●	●	●
3", 4" x 3"	●	●	●	●	●	●	●	●	●	●
5000 WP										

SIZE	BODY			BONNET	GATE	STEM	STUDS	SEAT INSERT	SEAT ELAS- TOMER
	S	W	F						
4", 5" x 4"	●	●	●	●	●	●	●	●	●
5000 WP									

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



**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

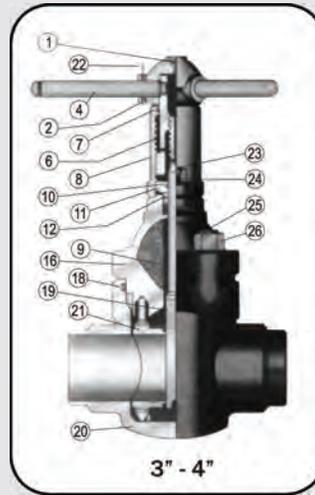
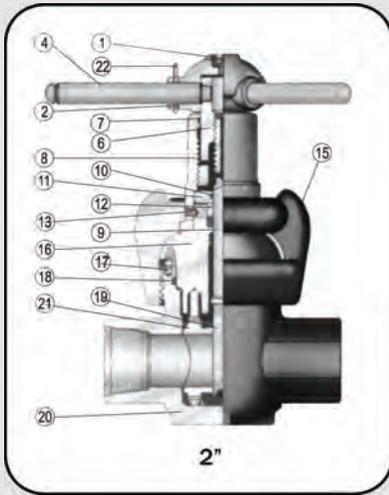
SEAT RING MATL. 1 - 410 SS

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:

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

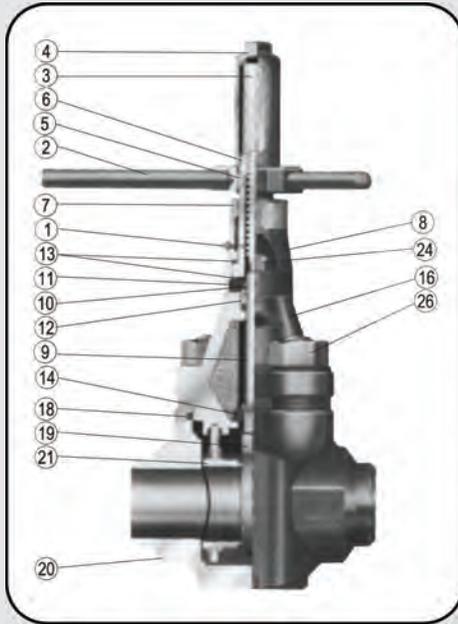
If the distance is correct, proceed to assembly step 5. If not, remove the seat, lock handle and hub from the assembly. Rotate the stem screw clockwise to bottom. Turn the gate and stem together, while holding the stem screw: counterclockwise to reduce the distance, or clockwise to increase the distance, 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



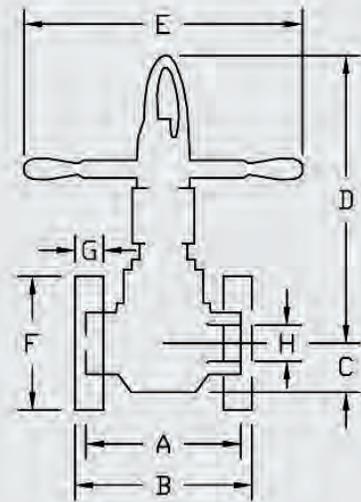
The MKP Model 72 gate valve is designed for easy operation and long life before maintenance is required.

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

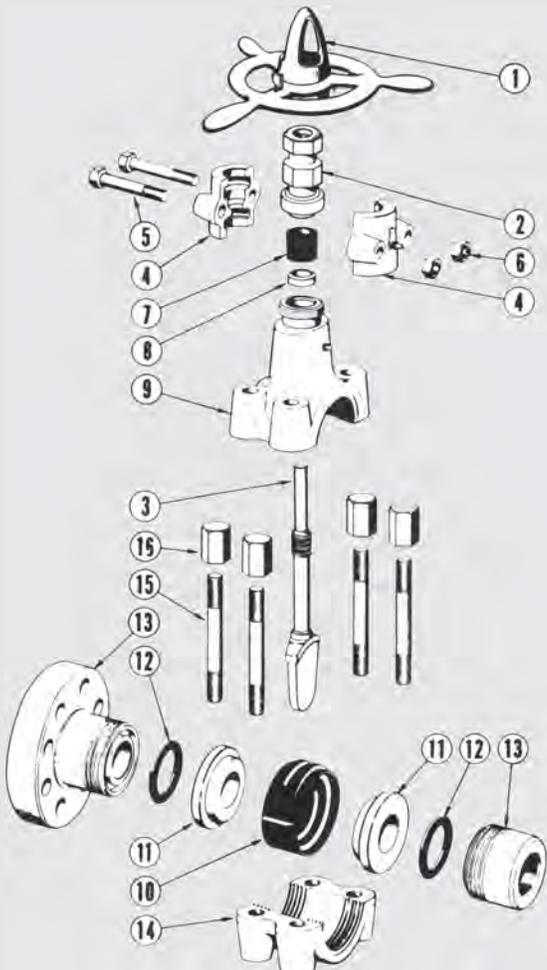
		5000 WP		
Size		2"	3"	4"
Weld End - Regular Port	Sch.xxH -10x Sch.160 -11x	M112000-xx	M113000-xx	M114000-xx
Gate Packing/Stem Packing/O-Ring	Buna N -xx1 Viton Seat -xx2			
Screwed End - Full Port	LP -20x NUE -21x	M122000-xxx	M123000-xxx	M124000
Gate Packing/Stem Packing/O-Ring	Buna N -xx1 Viton Seat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

MUD  **KING**
PRODUCTS



BUTTERFLY VALVES

MUD KING PRODUCTS BUTTERFLY VALVES

WARRANTY

MUD KING: warrants its products to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from the date of shipment. The liability for any defects shall be limited to the repair or replacement of such products, or, at the option of **MUD KING** the refunding of purchase price. This warranty is expressly in lieu of all other warranties and representations, expressed or implied, and all other obligations or liabilities on the part of MUD KING, which shall not be liable for consequential damages for any breach of warranty. Any controversy or dispute arising out of the sale of **MUD KING** products shall be determined in accordance with the laws of the State of Texas.

**ALL PARTS ARE FULLY INTERCHANGEABLE WITH
DEMCO BUTTERFLY VALVES**

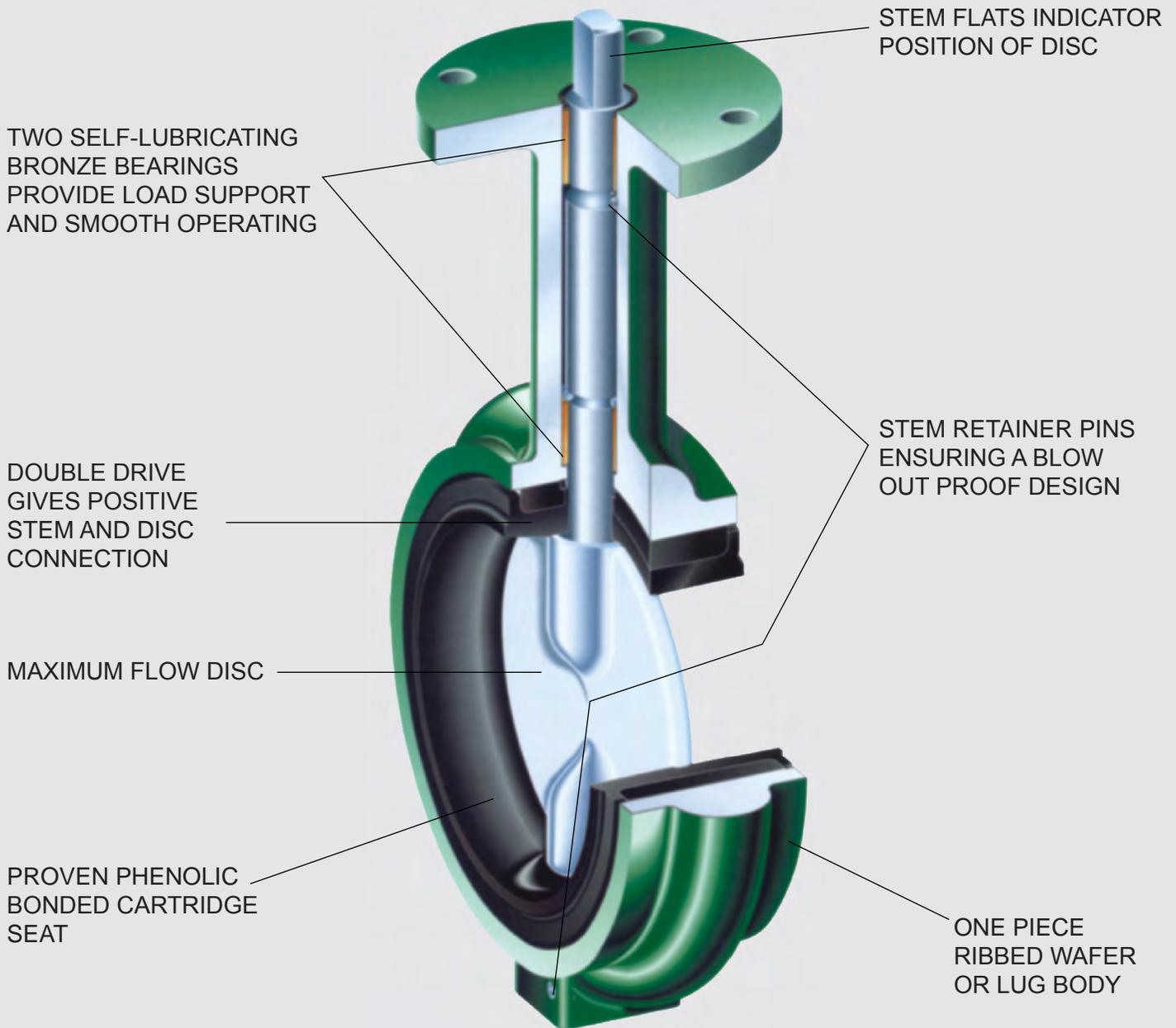
MKP, INC. is in no way affiliated with any O.E.M. Names and Part Numbers are for identification purposes only and are not trade marks or trade names used by MKP, INC.

**MUD KING PRODUCTS VALVES AND PARTS ARE MANUFACTURED
STRICTLY FOR MUD KING UNDER ISO LICENSE**

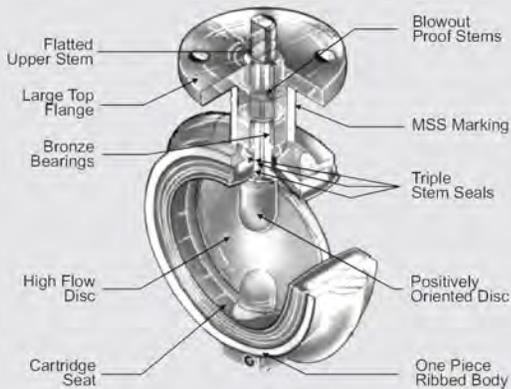
INFORMATION

The **MUD KING** wafer and lug type butterfly valves are designed to meet the stringent requirements of chemical plants, processing plants, power plants, refineries, shipbuilding, pulp and paper mills, and wherever positive shut-off is required for liquids, oil, gas, and gas slurries. They are also the ideal choice for heating, ventilation and air conditioning applications.

THE LEADER AND #1 CHOICES IN THE OIL DRILLING INDUSTRY



**NE BUTTERFLY VALVES 2" – 12"
14" – 24" AVAILABLE ON REQUEST**



BODY

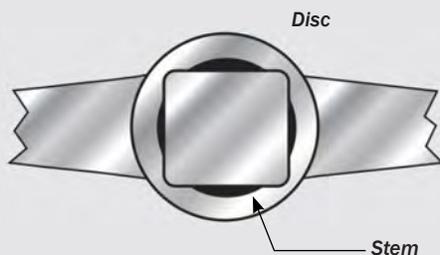
One piece bodies are ribbed to assure **high strength** and **minimum weight**. Bodies are cast in both wafer and tapped-lug patterns, in a wide variety of material choices, to meet virtually every installation requirement.

Body rating is ANSI Class 150 (285 psi non-shock). Wafer body diameters are designed to self-center in ANSI 150 flange patterns.

The large top flange provides a secure mounting area for automatic or manual actuators.

DISC

MK Butterfly Valve discs and seat are configured for **low pressure drop** and high flow coefficients. Full radius polished edges slide into drop tight seat engagement with little turning effort.



SEAT

The MK Butterfly Valve seat is constructed by bonding a resilient elastomer to a rigid back-up ring, which forms the outside periphery of the seat. Slip fitted in the valve body, the seat is **field replaceable** without special tools. In the closed position, the disc rim and stem seal lands form an uninterrupted line of sealing contact with the resilient seat, to assure **drop tight sealing** at rated shutoff pressure. MKP seats is offered in a wide range of materials.

FLANGE SEALS

The inner surface of the seat is widened to project outside the face-to-face width of the valve body. When mounted between weld neck or socket flanges, the extra rubber is compressed to form a positive seal against both flanges. The seal surface, near the outer periphery of each seat face is designed to seal against slip-on or threaded flanges. Only valves with throttling discs require gaskets.

DISC DRIVE

Proper – orientation of the stem/disc connection is assured by the rectangular drive. The disc is permitted to float on the stem to perfectly center in the valve seat.

STEMS

Upper stems are flatted for positive drive and for easy installation of handles and actuators.

Retained by tangential pins, upper and lower stems are **blowout proof** for safety when handles or actuators are removed from the valve top.

STEM JOURNAL

Two self-lubricating bronze **bearings** reduce torsional friction, eliminate galling and seizing of the stem, while supporting the stem against side loading from pressure on the closed disc. MK places one bearing at the base of the stem.

STEM SEALS

The stem holes in the disc are surrounded by an annular raised land which passes the seat onto the seat flat at every angular position of the disc. The resilient seat presses back with a **higher** specific force than the line pressure, **preventing leakage** to the stem.

In competitive stem seal designs with boot seats, a seal is accomplished by an interference “squeezing” on the stem, or an o-ring in the stem journal. The potential for leakage behind the seat is high. As the disc wipes the seat, elongation of the stem seal area allows leakage to collect behind the seat. This condition is **eliminate by MKP dry stem journal** and hard-backed seat.



PRESSURE RATING

Three drop tight pressure ratings are offered for MK Butterfly Valves. Normally, 200 psi shutoff is used in butterfly applications. However, 285 psi shutoff is optionally available for higher pressure applications. For smaller actuator sizing, 50 psi valves offer reduced torque.

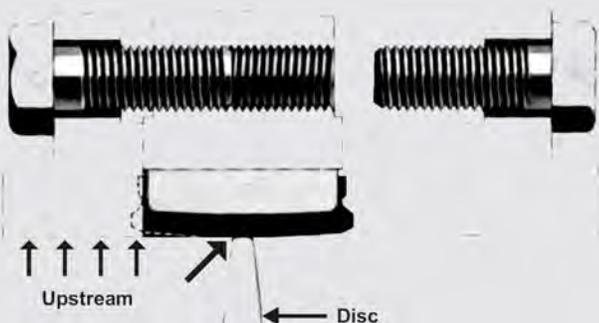
For minimum torque, throttling valves, which do not provide drop tight closure, are available.

END-OF-LINE SERVICE

Lug body valves may be used in end-of-line service, with downstream piping removed. (Weld neck or socket flanges, only can be used for this service). Since upstream pressure is excluded between the flange seal, there is no effective force to slide the seat downstream.

MKP Lug Butterfly Valves are recommended for liquid service up to 200 psi with downstream piping removed.

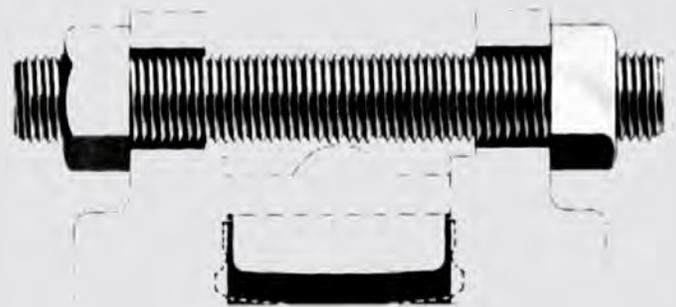
Lug body valves are recommended for isolation of pumps, control devices, or other system components which may need to be removed for repair or replacement. Lug valves are also suitable for installation at points from which piping expansions may proceed. Such valves are normally blanked with blind flanges, to protect the exposed seats, until new piping is attached.



ACTUATION

Positive latch handles, worm gear operators, and automatic actuators are available and totally inter-changeable on the MKP valve.

The MKP to flange is dimensionally compatible with other competitive butterfly valves. With optional "utility top" stem, the MKP valve interchange directly with competitive valves, allowing valve replacement without the need for new actuation.



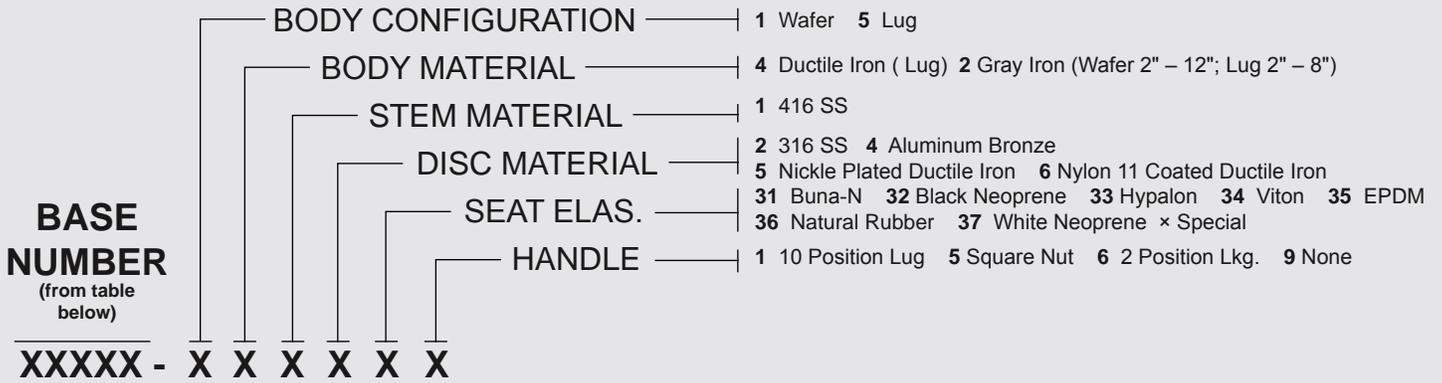
INSTALLATION AND MAINTENANCE

MKP Butterfly Valves are bi-directional, with identical flow-way from either face. To install, simply close the valve, insert between flanges and make up with studs or cap screws. No regular maintenance or lubrication is ever required. Disassembly is simple, for inspection or replacement of parts. Open the valve, remove handle or actuator, remove tangential pins, pull out stems and push the disc and seat out of the body. Reassemble in reverse order, with a small amount of general purpose non-hydrocarbon based lubricant on the outside of stems, seat, and disc flats.

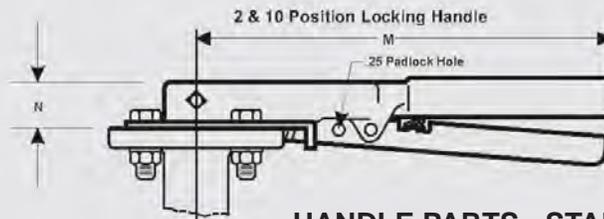
Steel or cast iron flanges of either raised or flat-faced type are suitable for use with **MKP Butterfly Valves**.

VALVE ASSEMBLY PART NUMBER

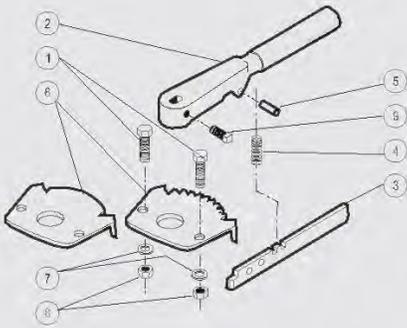
A base part number defines series, size, and shutoff pressure, and is followed by a 7-digit suffix which specifies all options, including handles.



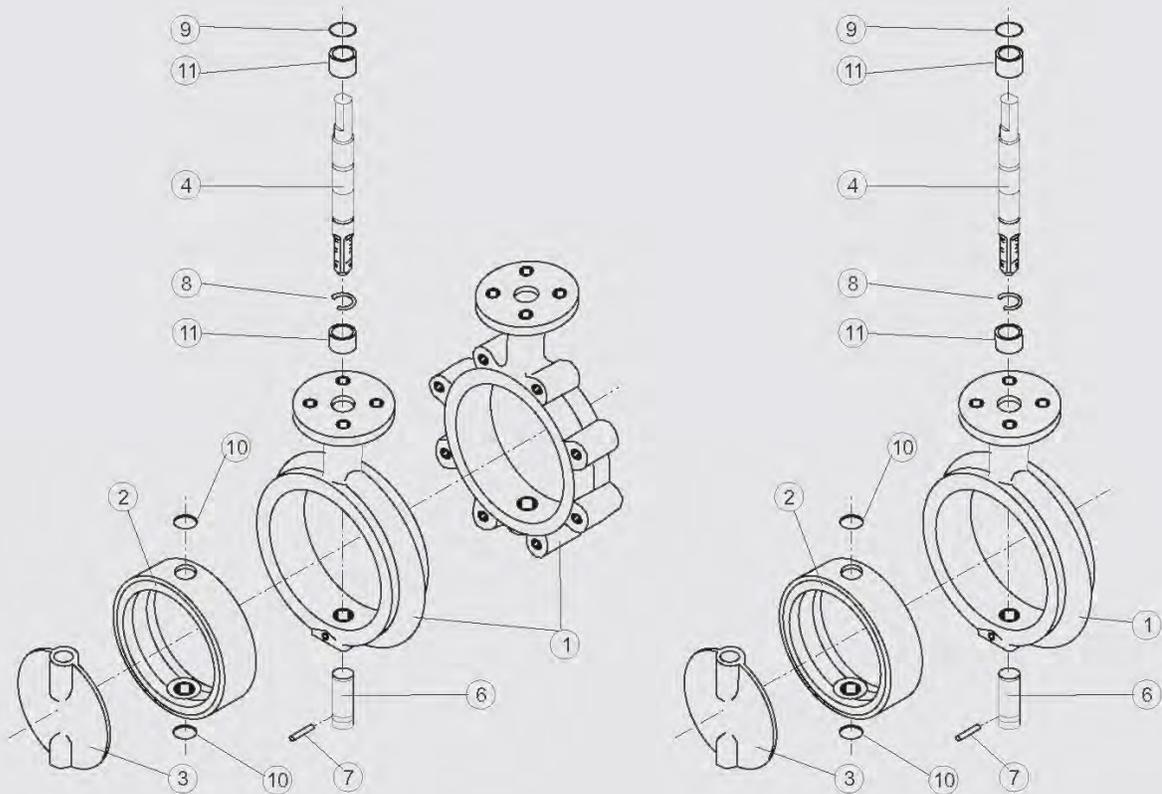
COMPONENT DESCRIPTION		2"	2½"	3"	4"	5"	6"	8"	10"	12"
NE-C	200 psi	M22119	M22120	M22121	M22122	M22123	M22124	M22125	M22126	M22127
WEIGHT	Wafer	5.8	7.0	7.7	11.4	14.7	17.6	28.5	47.9	71.0
LBS.	Lug	8.0	9.9	10.7	17.0	24.5	28.5	43.5	65.9	98.5
NE-D	200 psi	M22181	M22129	M22182	M22183	M22184	M22185	M22134	M22186	M22136
Weight (lbs. - bare stem)	Wafer	4.9	6.4	6.9	10.2	13.7	16.4	28.4	44.8	66.8



HANDLE PARTS - STANDARD TRIM

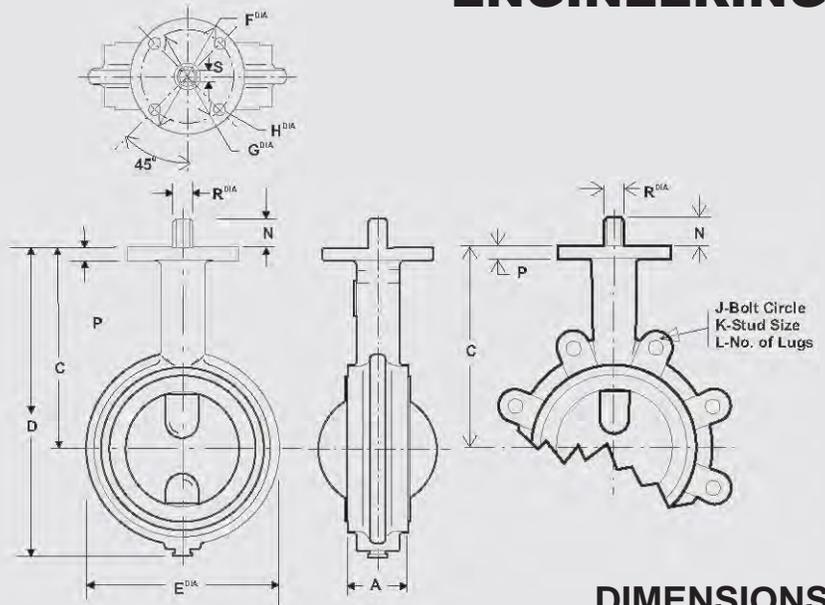


REF NO.	COMPONENT DESCRIPTION	2" - 4"	5" - 6"	8"	10"	12"
	ASSY. BASE PART NO. -10 POSITION	M24227-001	M24228-001	M24229-001	M24230-001	M24231-001
	-2 POSITION	M24232-001	M24233-001	M24234-001	M24235-001	M24236-001
1	SCREW Steel	M5650-24020			M5650-28024	
2	HANDLE Ductile Iron	M24237-001	M24238-001	M24239-001	M24240-001	M24241-001
3	LATCH Zinc Plated Steel	M23719-001	M23720-001		M23721-001	
4	SPRING Spring Steel	M16238				
5	SPRING PIN Spring Steel	M5445-25014			M5446-37516	
6	THROTTLE PLATE -10 POSITION	M24242-001	M24243-001	M24244-001	M24245-001	M24246-001
	-2 POSITION	M24247-001	M24248-001	M24249-001	M24250-001	M24251-001
7	LOCK WASHER Steel	M5900-006			M5901-008	
8	NUT Zinc Plated Steel	M5327-024				
9	SET SCREW Steel	M5727-22012			M5727-22016	
	DIMENSIONS	M	9.50	11.00	15.00	15.00
		N	0.85	1.07	1.13	1.13
	HANDLE WEIGHTS (lbs) 2 or 10 Pos. Lkg.	2	3	5	5	9



REF NO.	COMPONENT DESCRIPTION	2"	2½"	3"	4"	5"	6"	8"	10"	12"	
1	BODY	NE-C Wafer	M22137-012	M22138-012	M22139-012	M22140-012	M22141-012	M22142-012	M22143-012	M22144-012	M22145-012
			ASTM A48 Gray Iron -012								
		NE-C Lug	M21986-05x	M21987-05x	M21988-05x	M21989-05x	M21990-05x	M21991-05x	M21992-05x	M21993-051	M21994-051
		Options	ASTM A395 Ductile Iron -051, ASTM A48 Gray Iron -052								
	NE-D Wafer	M22187-021	M22682-011	M22188-021	M22189-021	M22190-021	M22191-021	M22687-011	M22192-021	M22689-011	
2	SEAT	M1786-xxx	M1788-xxx	M1790-xxx	M1792-xxx	M1794-xxx	M1002-xxx	M1798-xxx	M1815-xxx	M1817-xxx	
		Options	-031 Buna-N -032 Blk. Neoprene -033 Hypalon -034 Viton								
			-035 EPT -036 Nat. Rubber -037 White Neoprene -x Special								
3	DISC	200 psi	M22045-0xx	M22046-0xx	M22047-0xx	M22048-0xx	M22049-0xx	M22050-0xx	M22051-0xx	M22052-0xx	M22053-0xx
		Options	-002 316 SS -005 Ni. Plated Duct Iron -014 Alum. Bronze								
4	UPPER STEM	NE-C	M22066-00x	M22067-00x		M22068-00x	M22069-00x		M22070-00x	M22071-00x	M22072-00x
		NE-D	M22073-00x	M22074-00x	M22193-00x	M22194-00x	M22195-00x		M22077-00x	M22078-00x	M22079-00x
6	LOWER STEM		M22080-66x	M22081-00x		M22082-00x	M22083-00x		M22084-00x	M22085-00x	M22086-00x
		Options	-001 416 SS -002 316 SS -004 Phos. Coated Steel								
7	SPRING PIN (2)	302 SS	M5448-18720			M5448-18724			M5448-25028		
8	RETAINER	Stainless Steel	M22117			M13704	M13705		M13706	M13707	
9	TOP O-RING	Buna-N	M5526-114			M5526-115	M5526-117		M5526-119	M5526-125	
10	STEM O-RING	Buna-N	M5526-113	M5526-115		M5526-116	M5526-212		M5526-214	M5526-220	
11	BEARING	Bronze	M22526-001	M22118-001		M13112-001	M13115-001		M13116-001	M13117-001	

THE NE-C STYLE BUTTERFLY VALVES ARE OFFERED IN WAFER OR LUG DESIGN WHICH MOUNT IN BETWEEN ANSI 125/150 FLANGES



DIMENSIONS

VALVE SIZE	A	C	D	E	F	G	H	J	K	L	N	P	R	S
2"	1.74	5.62	8.44	4.12	4.00	3.25	.408	4.75	5/8 - 11	4	1.00	.44	.625	.375
2½"	1.86	6.12	9.19	4.88	4.00	3.25	.408	5.50	5/8 - 11	4	1.00	.44	.625	.375
3"	1.86	6.38	9.69	5.36	4.00	3.25	.408	6.00	5/8 - 11	4	1.00	.44	.625	.375
4"	2.11	7.12	11.00	6.88	4.00	3.25	.408	7.50	5/8 - 11	8	1.00	.44	.625	.375
5"	2.24	7.75	12.12	7.75	4.00	3.25	.408	8.50	3/4 - 10	8	1.25	.44	.838	.500
6"	2.24	8.25	13.25	8.75	4.00	3.25	.408	9.50	3/4 - 10	8	1.25	.44	.838	.500
8"	2.54	9.44	15.56	11.00	6.00	5.00	.533	11.75	3/4 - 10	8	1.38	.56	.838	.500
10"	2.74	11.25	18.69	13.38	6.00	5.00	.533	14.25	7/8 - 9	12	1.38	.56	.963	.625
12"	3.24	12.19	21.69	16.12	6.00	5.00	.533	17.00	7/8 - 9	12	1.38	.56	1.338	.750

CLASS II TORQUES (Inch - Pounds)

Shutoff Pressure	2"	2½"	3"	4"	5"	6"	8"	10"	12"
50 PSI SHUTOFF	88	96	150	225	350	450	750	1325	2250
75 PSI SHUTOFF	98	141	237	243	504	651	1050	1778	2990
100 PSI SHUTOFF	103	148	249	261	531	685	1105	1872	3147
125 PSI SHUTOFF	107	155	260	375	553	714	1151	1950	3279
150 PSI SHUTOFF	110	158	265	384	564	728	1175	1989	3345
175 PSI SHUTOFF	121	175	283	417	632	814	1337	2320	3928
200 PSI SHUTOFF	132	192	300	450	700	900	1500	2650	4500
250 PSI SHUTOFF	145	211	318	485	770	990	1695	2995	5085
285 PSI SHUTOFF	160	232	337	528	847	1089	1915	3384	5746

Value Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	2	5	10	18	28	55	77	127	153
2½"	3	7	14	24	41	87	115	186	242
3"	4	12	23	37	66	129	186	274	337
4"	6	24	44	76	125	241	312	521	601
5"	8	32	87	158	257	298	632	983	1122
6"	9	52	148	244	413	786	1028	1633	1949
8"	12	101	246	418	693	1279	1732	2702	3232
10"	21	165	393	667	1144	2140	2744	4276	4979
12"	28	233	555	992	1588	3096	4044	6048	7481

Class II

- ⊗ Valve to be operated a minimum of once a month.
- ⊗ Temperature wall within resilient seat limits.
- ⊗ Line media is a self lubricating (Aqueous liquids) *.
- ⊗ Minor chemical attacks on seat.
- ⊗ Disc corrosion and media deposits to be mild.

Notes:

1. The chart to be used as a guide only.
2. These torque rating do not apply to every possible service criteria, which may affect seating and unseating torque.
3. Torque values are applicable to MUD KING NE-C values.
4. Do not apply a safety factor to the above torque values when sizing actuators.
5. Dynamic Torque should always be a consideration when sizing valves with high differential pressures.
6. For 3 way tee assemblies multiply the above torques by 1.5.

TYPE COMPOUND	TYPE OF SERVICE	TEMPERATURES
Buna-N	General purpose elastomer compound for maximum hydrocarbon or petroleum.	0° F – 180° F
Black Neoprene	Complies with FDA guidelines and generally used in food and beverage service and resistant to brine, vegetable oils, and oxygen.	0° F – 180° F
White Neoprene	Same chemical resistant as black neoprene in physical properties are not as good as black. White neoprene should only be used when black cannot be tolerated and storage should be in low light conditions.	0° F – 180° F
Viton	Excellent in harsh chemical environments and elevated temperatures.	+20° F – 300° F
Hypalon	Excellent in acids and hydrocarbons and very high chemical resistant.	0° F – 180° F
Natural Rubber	Recommended for dry material handling and high abrasion resistance. Use in oils and solvents not recommended.	+30° F – 150° F
EPDM	Formulated to comply with FDA guidelines, this material is suitable for food service except edible oils and milk.	+30° F – 275° F



CARTRIDGE ASSEMBLIES

**Full Line of Quick Change Cartridge Assemblies For MK,
National, Emsco, Ideco, Oilwell, Gardner Denver, Varco and Tesco**

WARRANTY

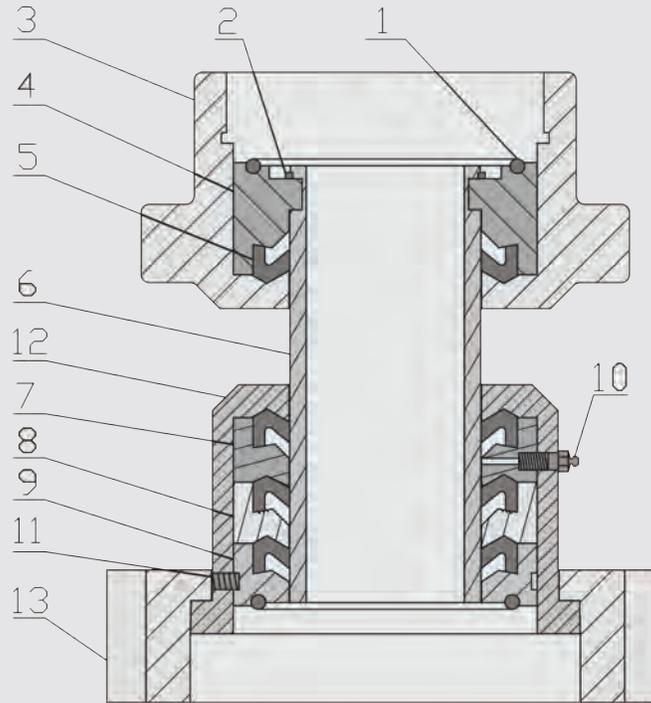
MUD KING: warrants its products to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from the date of shipment. The liability for any defects shall be limited to the repair or replacement of such products, or, at the option of **MUD KING** the refunding of purchase price. This warranty is expressly in lieu of all other warranties and representations, expressed or implied, and all other obligations or liabilities on the part of MUD KING, which shall not be liable for consequential damages for any breach of warranty. Any controversy or dispute arising out of the sale of **MUD KING** products shall be determined in accordance with the laws of the State of Texas.

**MUD KING PRODUCTS CARTRIDGE ASSEMBLIES
ARE MANUFACTURED STRICTLY FOR MUD KING PRODUCTS**

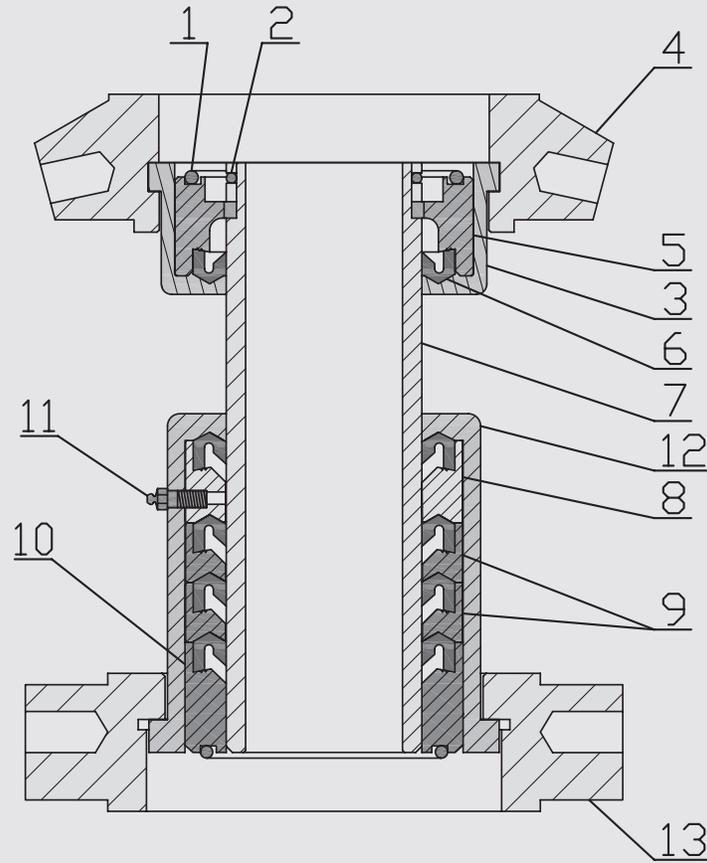
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identification purposes only and are not trade marks or trade names used by MKP, INC.**

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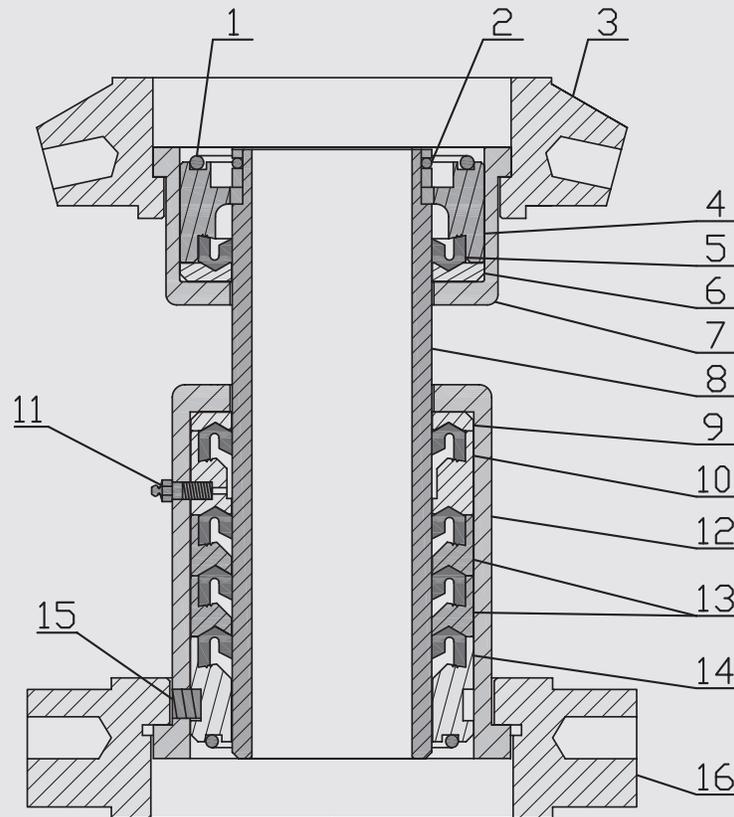
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Item#	Qty	Description	SW150
1	2	O-Ring	SWA459.17
2	1	Snap Ring	SWA459.16
3	1	Top Nut	SWA459.20
4	1	Locking Spacer	SWA459A.18
5	1	Washpipe Packing (Includes 4 Packing Rings and Item 1)	SW150PA
6	1	Washpipe Assembly (Includes Item 2)	SW150WP
7	1	Top Spacer Ring	SWA459A.23
8	1	Middle Spacer Ring	SWA459.24
9	1	Bottom Spacer Ring	SWA459.26
10	1	Grease Nipple	SWA150GB1152-74
11	1	Lock Screw	SWA459A.25
12	1	Lower Packing Box	SWA459A.22
13	1	Lower Nut	SWA459.9
		Cartridge Assembly (Includes Items 1 thru 13)	SW150QC

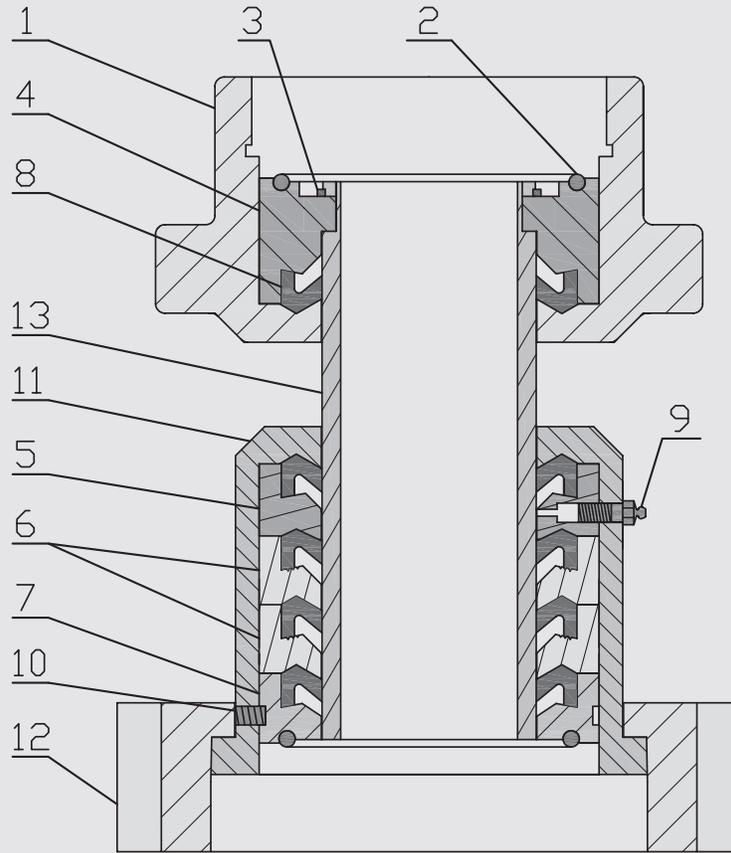


Item#	Qty	Description	SW200
1	2	O-Ring	SW180A430-42
2	1	Snap Ring	SW180A430-31
3	1	Upper Packing Box	SW180A430-34
4	1	Top Nut	SW180A430-32
5	1	Locking Spacer	SW180A430-33
6	1	Washpipe Packing (Includes 5 Packing Rings and Item 1)	SW200PA
7	1	Washpipe Assembly (Includes Item 2)	SW200WP
8	1	Top Spacer Ring	SW180A430-37
9	2	Middle Spacer Ring	SW180A430-38
10	1	Bottom Spacer Ring	SW180A430-41
11	1	Grease Nipple	SW180GB1152-79
12	1	Lower Packing Box	SW180A430-36
13	1	Lower Nut	SW180A430-43
		Cartridge Assembly (Includes Items 1 thru 13)	SW200QC



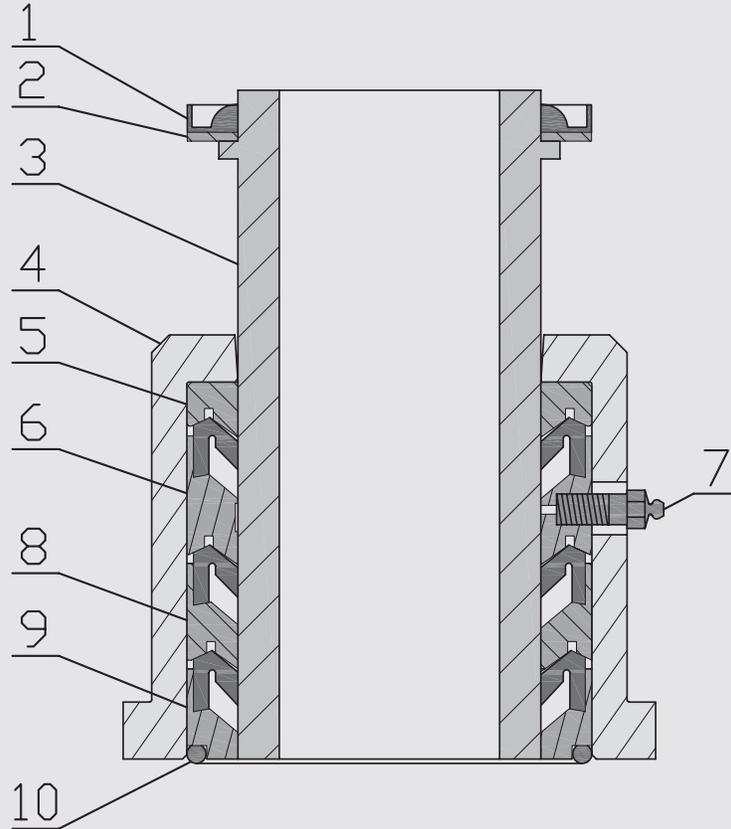
Item#	Qty	Description	SW250/500
1	2	O-Ring	SW250GB1235-76
2	1	Snap Ring	SWSL225-04.02
3	1	Top Nut	SWSL225-04.01
4	1	Locking Spacer	SWSL225-04.03
5	1	Washpipe Packing (Includes 5 Packing Rings and Item 1)	SW250/500PA
6	1	Upper Spacer	SWSL225-04.04
7	1	Upper Packing Box	SWSL225-04.05
8	1	Washpipe Assembly (Includes Item 2)	SW250/500WP
9	1	Lower Spacer	SWSL225-04.08
10	1	Grease Spacer	SWSL225-04.09
11	1	Grease Fitting	SW180GB1152-79
12	1	Lower Packing Box	SWSL225-04.07
13	2	Middle Spacer Ring	SWSL225-04.11
14	1	Lower Packing Spacer	SWSL225-04.12
15	1	Set Screw	SW250GB75-85
16	1	Lower Nut	SWSL225-04.13
		Cartridge Assembly (Includes Items 1 thru 16)	SW250/500QC

EMSCO LB200/300 LB400/650

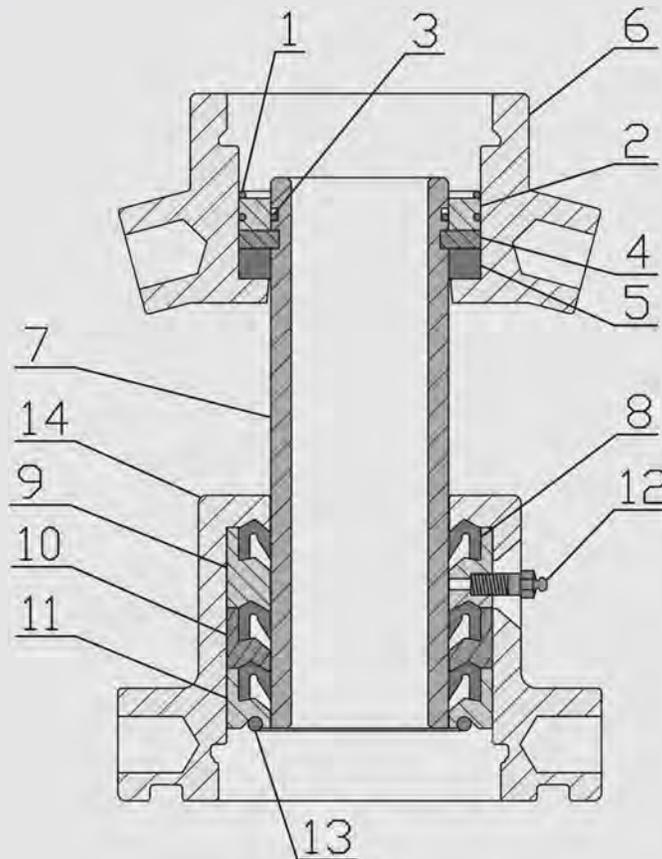


Item#	Qty	Description	LB200/300 Part Number	LB400/650 Part Number
1	1	Upper Gland Nut	SW-6597-0381-00	SW-6597-0381-00
2	2	O-Ring	SW-7602-1600-63	SW-7602-1600-63
3	1	Retaining Ring	SW-6597-0395-00	SW-6597-0395-00
4	1	Upper Packing Spacer	SW-6597-0388-00	SW-6597-0388-00
5	1	Top Packing Spacer	SW-6597-0382-00	SW-6597-0382-00
6	2*	Middle Packing Spacer	SW-6597-0383-00	SW-6597-0383-00
7	1	Bottom Packing Spacer	SW-6597-0384-00	SW-6597-0384-00
8	5*	Packing Ring	SW-6597-0338-00	SW-6597-0338-00
9	1	Grease Fitting	SW-7601-2070-01	SW-7601-2070-01
10	1	Socket Head Setscrew	SW-7601-0370-96	SW-7601-0370-96
11	1	Packing Gland Housing	SW-6597-0380-10	SW-6597-0380-00
12	1	Lower Gland Nut	SW-6597-0379-00	SW-6597-0379-00
13	1	Washpipe c/w Snap Ring (Includes Item 3)	SW-70-103-38	SW-70-103-36
14	1	Washpipe Packing (Includes Items 2 & 8)	SW-75-103-20	SW-75-103-24
		Cartridge Assembly (Includes Items 1 thru 14)	SW-6597-0040-00	SW-6597-0394-00

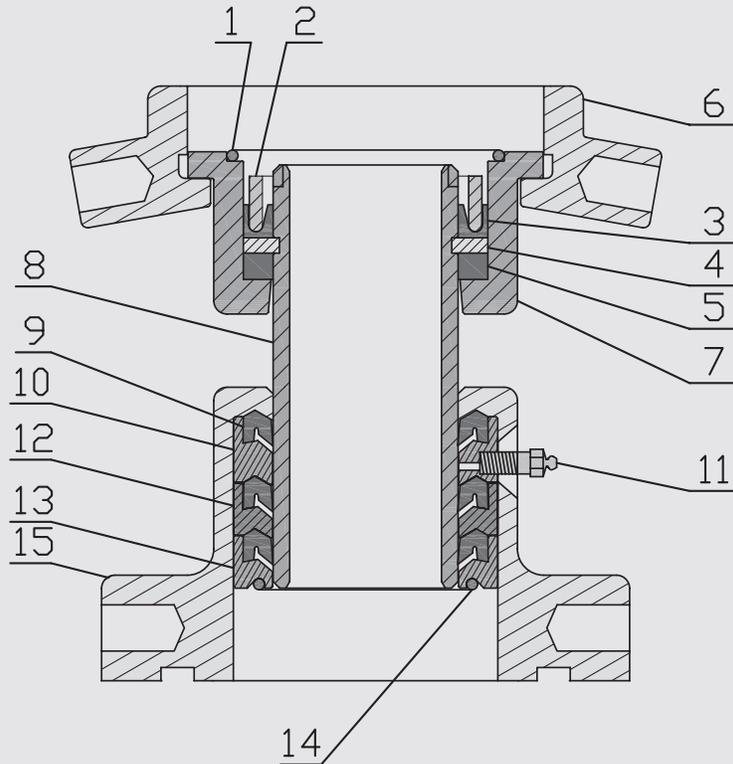
*The LB200/300 Requires (1) less of each



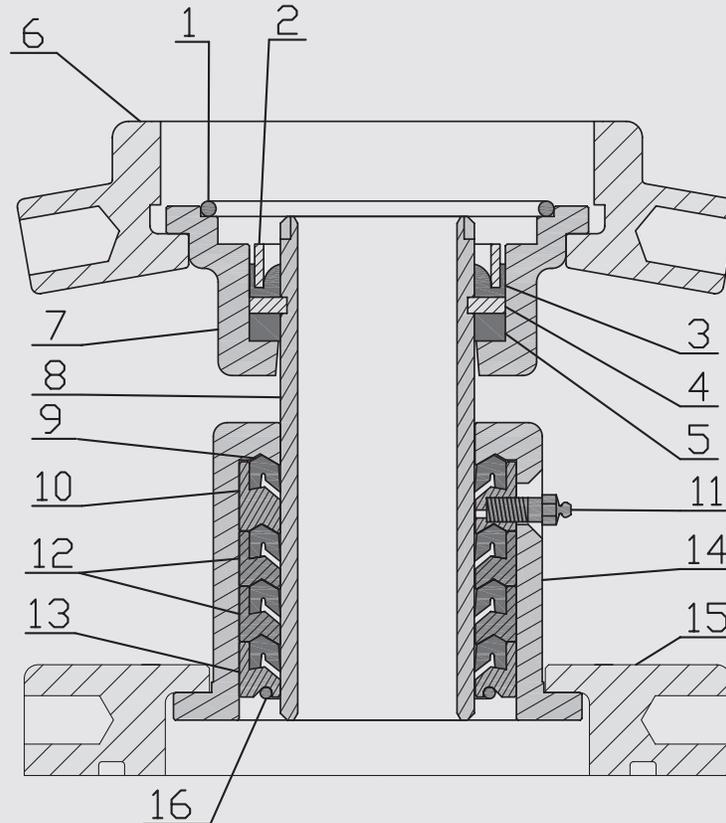
Item#	Qty	Description	SW400/550
1	1	Washpipe Packing (Includes 4 Packing Rings and Item 10)	SW-75-116-2
2	1	Packing Ring	SW-126961
3	1	Washpipe	SW-70-116-2
4	1	Packing Box	SW-185303
5	1	Top Spacer	SW-185304
6	1	Spacer Ring	SW-185305
7	1	Grease Fitting	SW-118043
8	1	Middle Spacer	SW-185306
9	1	Bottom Spacer	SW-185307
10	1	O-Ring	SW-162810



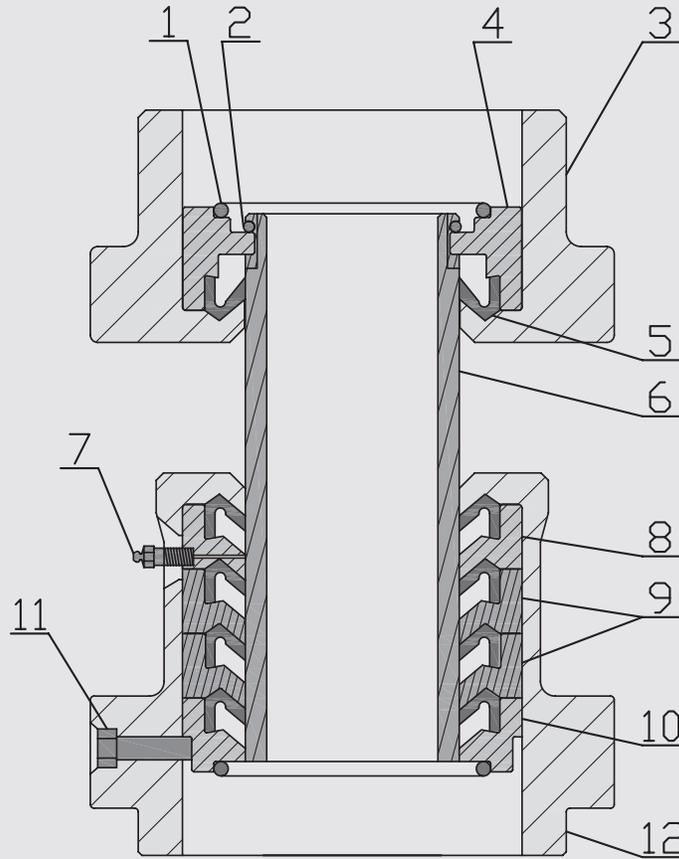
Item#	Qty	Description	TL120
	1	Upper Packing Assembly (Includes Items 1 thru 5)	SW-IP-166
1	2	O-Ring	SW-IO-531
2	1	Seal Adapter	SW-339-32
3	1	O-Ring	SW-IO-523
4	1	Retaining Ring	SW-339-DA
5	1	Fleximount Ring	SW-339-DB
6	1	Upper Cartridge	SW-559-10
7	1	Washpipe	SW-70-107-4
	1	Lower Packing Assembly (Includes Items 8 thru 13 & Grease)	SW-IP-177
8	1	Washpipe Packing (Includes 3 Packing Rings and Item 13)	SW-75-107-16
9	1	Upper Packing Spacer	SW-559-23-01
10	1	Middle Packing Spacer	SW-559-23-03
11	1	Lower Packing Spacer	SW-559-23-04
12	1	Grease Fitting	SW-IF-161
13	1	O-Ring	SW-IO-502
14	1	Lower Cartridge	SW-559-23-02
		Quick Change Cartridge Assembly (Includes Items 1 thru 14)	SW-TL120QC



Item#	Qty	Description	TL200
	1	Upper Packing Assembly (Includes Items 1 thru 5)	SW-IP-159
1	1	O-Ring	SW-IO-518
2	1	Spacer	SW-491-17
3	1	Seal Ring	SW-IP-158
4	1	Retaining Ring	SW-491-19
5	1	Fleximount Ring	SW-491-18
6	1	Upper Nut	SW-531-13
7	1	Upper Cartridge	SW-531-14-01
8	1	Washpipe	SW-70-107-12
	1	Lower Packing Assembly (Includes Items 9 thru 13 & Grease)	SW-IP-802
9	1	Washpipe Packing (Includes 3 Packing Rings and Item 14)	SW-75-107-9
10	1	Upper Packing Spacer	SW-531-23-01
11	1	Grease Fitting	SW-IF-161
12	1	Middle Packing Spacer	SW-531-23-03
13	1	Lower Packing Spacer	SW-531-23-04
14	1	O-Ring	SW-IO-516
15	1	Lower Cartridge	SW-531-23
		Quick Change Cartridge Assembly (Includes Items 1 thru 15)	SW-TL200QC

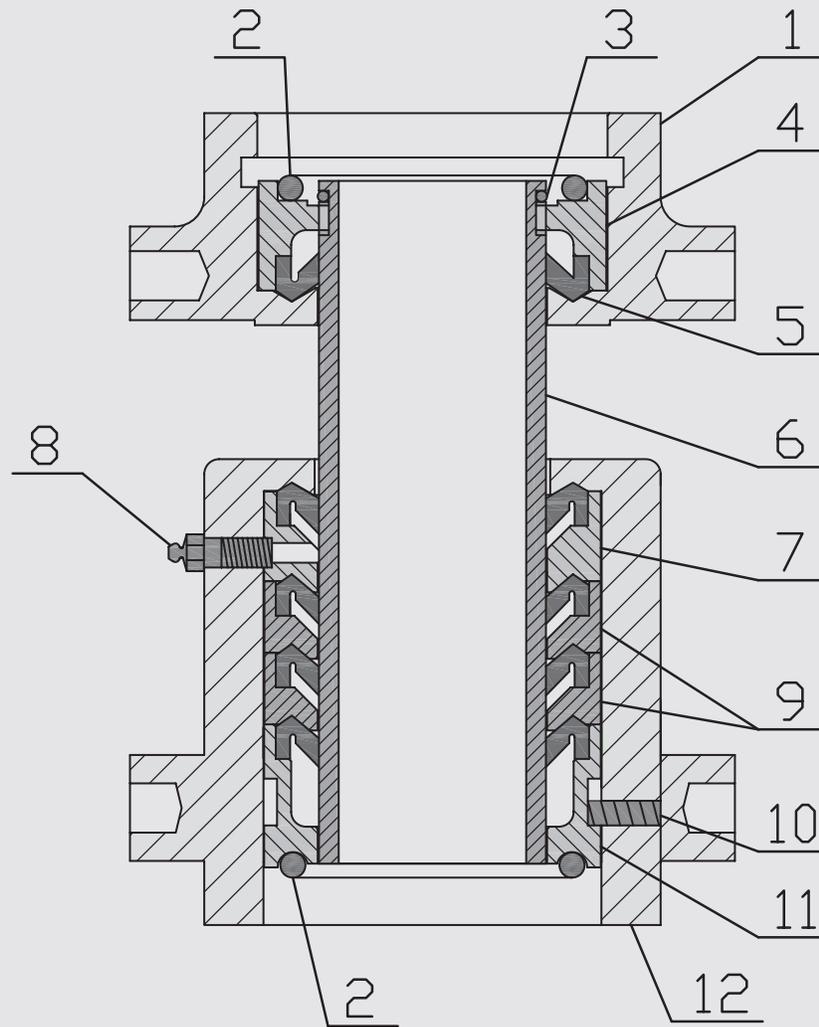


Item#	Qty	Description	TL300/500
	1	Upper Packing Assembly (Includes Items 1 thru 5)	SW-IP-162
1	1	O-Ring	SW-IO-519
2	1	Spacer	SW-491-17
3	1	Seal Ring	SW-IP-158
4	1	Retaining Ring	SW-491-19
5	1	Fleximount Ring	SW-491-18
6	1	Upper Nut	SW-491-10
7	1	Upper Cartridge	SW-491-20
8	1	Washpipe	SW-70-107-12 (TL200/400) SW-70-107-10 (TL500)
	1	Lower Packing Assembly (Includes Items 9 thru 13 & Grease)	SW-IP-801
9	1	Washpipe Packing (Includes 4 Packing Rings and Item 16)	SW-75-107-3
10	1	Upper Packing Spacer	SW-531-23-01
11	1	Grease Fitting	SW-IF-161
12	2	Middle Packing Spacer	SW-531-23-03
13	1	Lower Packing Spacer	SW-531-23-04
14	1	Lower Cartridge	SW-491-27
15	1	Lower Nut	SW-491-11
16	1	O-Ring	SW-IO-516
		Quick Change Cartridge Assembly (Includes Items 1 thru 16)	SW-TL500QC SW-TL400QC (TL300/400)



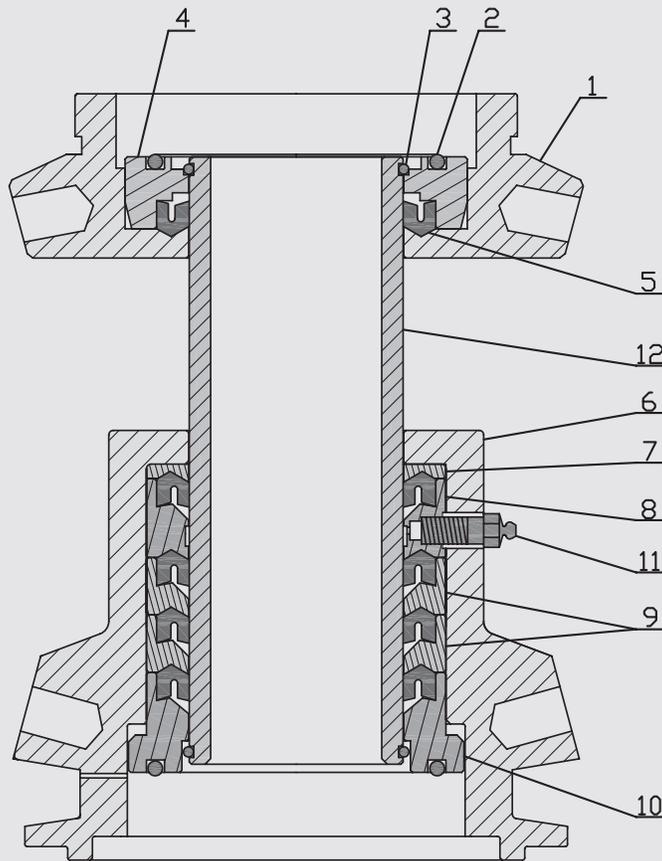
Item#	Qty	Description	P200/650
1	2	O-Ring	SW-7817600-438
2	1	Snap Ring	SW-623459
3	1	Washpipe Holding Nut	SW-649357
4	1	Washpipe Holding Ring	SW-649356
5	1	Washpipe Packing (Includes 5 Packing Rings and Item 1)	SW-75-106-24
6	1	Washpipe Assembly (Includes Item 2)	SW-70-106-24
7	1	Grease Fitting	SW-7805138
8	1	Washpipe Packing Spacer	SW-649358-A
9	2	Middle Washpipe packing Spacer	SW-649359
10	1	Lower Washpipe Packing Spacer	SW-649360
11	1	Set Screw	SW-649369
12	1	Washpipe Packing Nut (Includes Item 11)	SW-649361-A
		Cartridge Assembly (Includes Items 1 thru 12)	SW-703429-G1U

NATIONAL N24/35 N47/1324

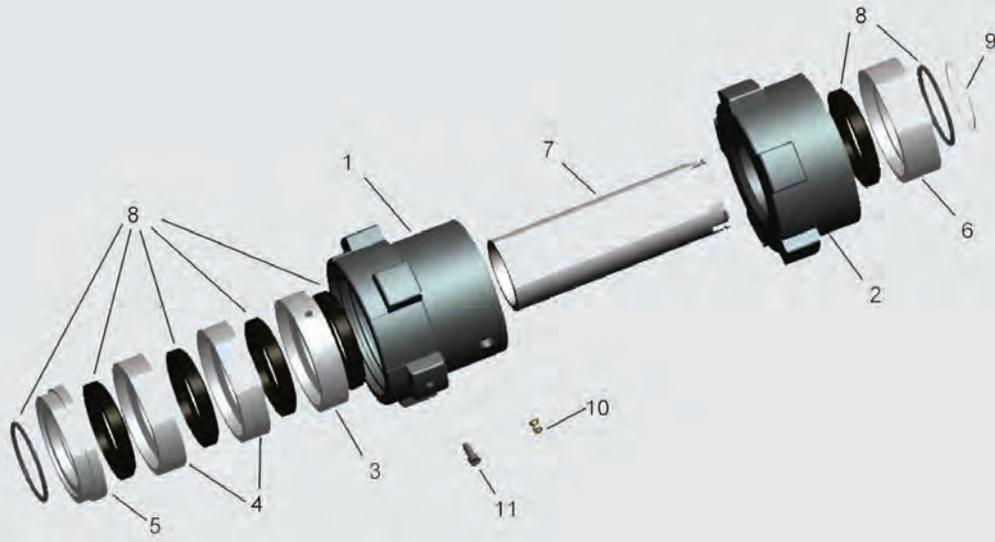


Item#	Qty	Description	N24/35	N47/1324
1	1	Washpipe Holding Cap	SW-627395	SW-624565
2	2	O-Ring	SW-627398	SW-621827
3	1	Snap Ring	SW-627399	SW-623459
4	1	Wash Pipe Holding Spacer	SW-627396	SW-623454-B
5	1	Washpipe Packing (Includes 5 Packing Rings & Item 2)	SW-75-106-17	SW-75-106-22
6	1	Washpipe Assembly (Includes Item 3)	SW-70-106-22	SW-70-106-12
7	1	Upper Spacer	SW-614198-A	SW-613151-A
8	1	Grease Fitting	SW-47640	SW-47640
9	2	Middle Spacer	SW-614197	SW-613150
10	1	Set Screw	SW-623457	SW-623457
11	1	Lower Packing Spacer	SW-627397	SW-623456
12	1	Washpipe Packing Box	SW-627394-A	SW-623455-A
		Quick Change Cartridge Assembly (Includes Items 1 thru 12)	SW-627394-AA2	SW-623455-AA2

OILWELL PC100/150 PC225/650



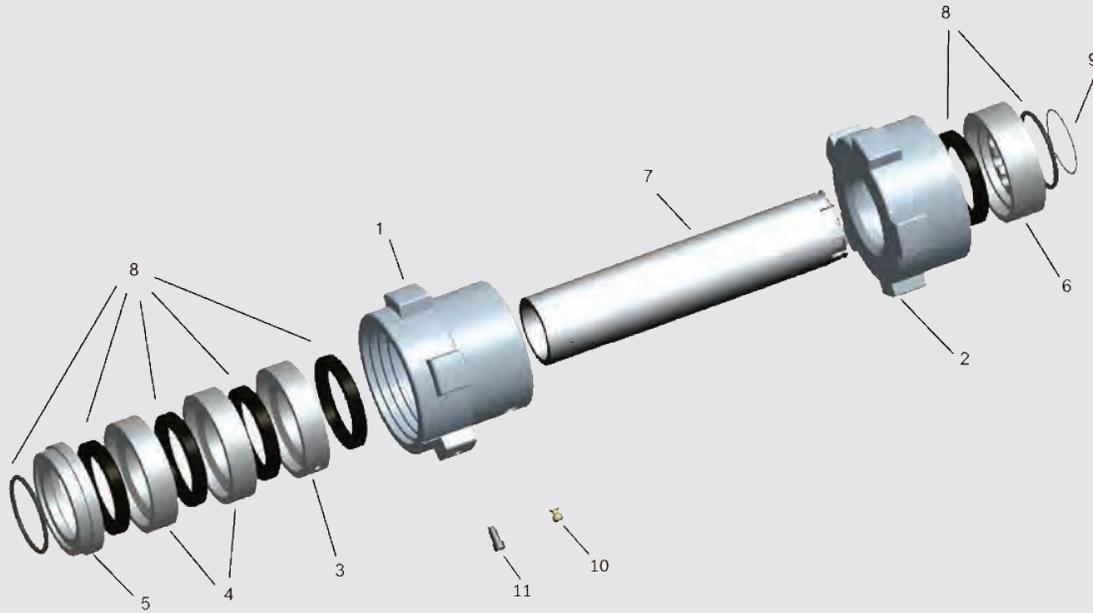
Item#	Qty	Description	PC100/150 Part Number	PC225/650 Part Number
1	1	Ring Nut	SW-22-032-002	SW-22-025-160
2	2	O-Ring	SW-99-607-344	SW-99-607-427
3	2	Snap Ring	SW-22-032-000	SW-22-025-164
4	1	Top Adapter Ring	SW-22-032-001	SW-22-025-169
5	5	Packing Ring	SW-22-028-181	SW-22-034-017
6	1	Packing Housing	SW-22-032-004	SW-22-025-166
7	1	Packing Adapter Ring	SW-22-032-005	SW-22-034-016
8	1	lantern Ring	SW-22-028-186	SW-22-034-015
9	2	Spacer Ring	SW-22-028-187	SW-22-034-013
10	1	Bottom Adapter Ring	SW-22-032-006	SW-22-034-014
11	1	Grease Fitting	SW-64-016-115	SW-64-016-115
12	1	Washpipe c/w Snap Ring (Includes Item 3)	SW-70-109-16	SW-70-109-18
13	1	Washpipe Packing (Includes Items 5 & 2)	SW-75-109-16	SW-75-109-18
		Cartridge Assembly (Includes Items 1 thru 13)	SW-22-030-012	SW-22-035-012



Item#	Qty	Description	TDS 11
1	1	Washpipe Packing Assembly Box	TD-30123563
2	1	Nut	TD-123284
3	1	Upper Spacer	TD-123285
4	2	Middle Spacer	TD-30123286
5	1	Lower Spacer	TD-30123287
6	1	Holding Ring	TD-30123288
7	1	Washpipe Assembly (Includes Item 9)	TD-30123289
8	1	Washpipe Packing (Includes 5 Packing Rings & 2 O-Rings)	TD-123292-2
9	1	Snap Ring	TD-30123562
10	1	Grease Fitting	TD-53219-1
11	1	Screw	TD-30123564
		Cartridge Assembly (Includes Item 1 thru 11)	TD-30123290



Item#	Qty	Description	200T/250T
1	1	Grease Fitting	TD-7808
2	1	Washpipe Assembly (Includes Item 5)	TD-5889
3	1	Seal Ring Bolt	TD-5890
4	1	Washpipe Packing (Includes 5 Packing Rings & 2 O-Rings)	TD-6003
5	1	Snap Ring	TD-6930
6	1	Packing Nut	TD-7178
7	1	Upper Nut	TD-7179
8	1	Upper Spacer	TD-7211
9	1	Upper Holding Spacer	TD-7212
10	2	Middle Spacer	TD-8022
11	1	Lower Spacer	TD-9300
		Cartridge Assembly (Includes Items 1 thru 11)	TD-8021



Item#	Qty	Description	CANRIG 1250AC
1	1	Washpipe Packing Box	TD-01-1005-010
2	1	Nut	TD-01-1000-010
3	1	Upper Spacer	TD-01-1003-010
4	2	Middle Spacer	TD-01-1004-010
5	1	Lower Spacer	TD-01-1006-010
6	1	Holding Ring	TD-01-1001-010
7	1	Washpipe Assembly (Includes Item 9)	TD-722-10-0
8	1	Washpipe Packing (Includes 5 Packing Rings & 2 O-Rings)	TD-01-1002-010
9	1	Snap Ring	TD-01-1007-010
10	1	Grease Fitting	TD-01-1003-01A
11	1	Screw	TD-01-1005-01A
		Cartridge Assembly (Includes Item 1 thru 11)	TD-1250AC



HANDLING TOOLS

MUD KING HANDLING TOOLS

WARRANTY

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**MUD KING PRODUCTS HANDLING TOOLS ARE MANUFACTURED
STRICTLY FOR MUD KING UNDER API AND ISO LICENSES**

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SD Style Drill Pipe Slips

The SD Style Drill Pipe Slip has a unique full wrap around grip and insert design to prevent damage to the drill pipe. The design of the slips with its dove tail slots holds the inserts securely in place and are easily changed for different size pipes. Three different sizes; short, medium and long covers the shallowest and deepest wells.



SDXL

SDS						
Body Size	3-1/2"			4-1/2"		
Pipe Size	2-3/8"	2-7/8"	3-1/2"	3-1/2"	4"	4-1/2"
Part Number	J-3901	J-3903	J-3905	J-3907	J-3909	J-3911
Insert	J-2160	J-2161	J-2162	J-2163	J-2164	J-2165
Insert Qty	24			36		
Retaining Ring c/w Hex Nut & Bolt	J-3738			J-3739		
Left Handle	J-3768					
Right Handle	J-3767					
Center Handle	J-3766					
Right/Left Handle (Flex)	J-3767-F					
Center Handle (Flex)	J-3766-F					
Handle Pin c/w Washer & Cotter Pin	J-3769					
Hinge Pin c/w Cotter Pin	J-2190					

SDML

<i>Body Size</i>	<i>3-1/2"</i>			<i>4-1/2"</i>			<i>5"</i>			<i>5-1/2"</i>		
Pipe Size	2-3/8"	2-7/8"	3-1/2"	3-1/2"	4"	4-1/2"	4"	4-1/2"	5"	4-1/2"	5"	5-1/2"
Part Number	J-15524	J-15523	J-15522	J-15563	J-15564	J-15565	J-15567	J-15568	J-15569	J-15571	J-15572	J-15573
Insert	J-2160	J-2161	J-2162	J-2163	J-2164	J-2165	J-2168	J-2166	J-2167	J-2168	J-2169	J-2170
Insert Qty	30			45			45			45		
Retaining Ring c/w Hex Nut & Bolt	J-3738			J-3739			J-3741			J-3740		
Left Handle							J-3768					
Right Handle							J-3767					
Center Handle							J-3766					
Right/Left Handle (Flex)							J-3767-F					
Center Handle (Flex)							J-3766-F					
Handle Pin c/w Washer & Cotter Pin							J-3769					
Hinge Pin c/w Cotter Pin							J-2192					
Insert Retaining Screw c/w Washer							J-3745					

SDXL

<i>Body Size</i>	<i>4-1/2"</i>			<i>5"</i>			<i>5-1/2"</i>					
Pipe Size	3-1/2"	4"	4-1/2"	4"	4-1/2"	5"	4-1/2"	5"	5-1/2"			
Part Number	J-15515	J-15514	J-15513	J-15518	J-15517	J-15516	J-15521	J-15520	J-15519			
Insert	J-2163	J-2164	J-2165	J-2168	J-2166	J-2167	J-2168	J-2169	J-2170			
Insert Qty	54			54			54					
Retaining Ring c/w Hex Nut & Bolt	J-3739			J-3741			J-3740					
Left Handle							J-3768					
Right Handle							J-3767					
Center Handle							J-3766					
Right/Left Handle (Flex)							J-3767-F					
Center Handle (Flex)							J-3766-F					
Handle Pin c/w Washer & Cotter Pin							J-3769					
Hinge Pin c/w Cotter Pin							J-2192					
Insert Retaining Screw c/w Washer							J-3745					

Woolley B Style Drill Pipe Slips

MKP carries three sizes of Woolley B Style Slips: short, long and extra long, to handle all size wells to be drilled. They have a unique torque transfer slot preventing excess wear and pressure and inserts are designed with flat backs so load is transferred to slip body. Slip inserts are easily replaced with removal of one retaining pin.



Woolley B Style Slips			
<i>Body Size</i>	<i>Type B Short 4-1/2"</i>		
<i>Pipe Size</i>	<i>3-1/2"</i>	<i>4"</i>	<i>4-1/2"</i>
Slip	J-738-144-0100-B	J-738-144-0100-A	J-738-144-0100
Insert	J-757-044-0134	J-757-044-0140	J-757-044-0144

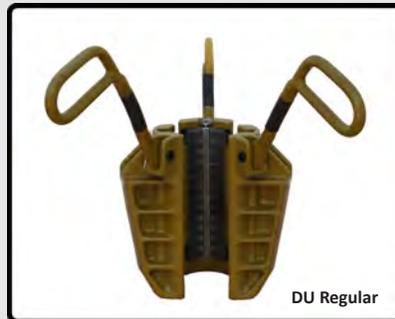
<i>Body Size</i>	<i>Type B Long 4-1/2"</i>		
<i>Pipe Size</i>	<i>3-1/2"</i>	<i>4"</i>	<i>4-1/2"</i>
Slip	J-738-244-0100-B	J-738-244-0100-A	J-738-244-0100
Insert	J-757-044-0134	J-757-044-0140	J-757-044-0144

<i>Body Size</i>	<i>Type B X-Long 5"</i>		
<i>Pipe Size</i>	<i>4"</i>	<i>4-1/2"</i>	<i>5"</i>
Slip	J-738-350-0100-B	J-738-350-0100-A	J-738-350-0100
Insert	J-757-050-0340	J-757-050-0344	J-757-050-0350

<i>Body Size</i>	<i>Type B Short & Type B Long</i>	<i>Type B X-Long</i>
Left Handle	J-737-000-0100	J-737-000-0700
Right Handle	J-737-000-0300	J-737-000-0701
Center Handle	J-737-000-0200	J-737-000-0800
Left Handle (Flex)	J-737-000-0100-F	J-737-000-0700-F
Right Handle (Flex)	J-737-000-0300-F	J-737-000-0701-F
Center Handle (Flex)	J-737-000-0200-F	J-737-000-0800-F
Handle Pin	J-737-000-0400	J-737-000-1000
Hinge Pin	J-737-000-0500	J-737-344-0500
Insert Retainer Pin	J-737-000-0600	J-737-000-1100
Cotter Pin	J-117-005-0400	

Baash-Ross DU Style Drill Pipe Slips

The DU Style Drill Pipe Slips are designed for long trouble free service. They are made of alloy steel and heat-treated for strength and resistance to wear. Both slips are for use in API tapered bowls. The DU Regular has a 12" long gripping surface and is designed for wells 8000' or less. The DU Long has a 16" long gripping surface and is designed for deep wells and heavier drill strings.



Description	DU Regular					
	4-1/2"			5-1/2"		7"
Body Size	4-1/2"			5-1/2"		7"
Pipe Size	3-1/2"	4"	4-1/2"	5"	5-1/2"	7"
Slip	J-7613-59-B	J-7613-59-A	J-7613-59	J-7613-60-A	J-7613-60	J-7613-62-70
Insert	J-7613-C-82	J-7613-FF-81	J-7613-A-81	J-7613-G-81	J-7613-H-81	J-7613-EE-81
Front Handle (Steel)	J-7613-5187					
Rear Handle (Steel)	J-7613-5195					
Front Handle (Flex)	J-7613-5187-F					
Rear Handle (Flex)	J-7613-5195-F					
Hinge Pin w/ Cotter	J-7613-A-12					
Front Handle Pin w/ Cotter	J-7613-B-12					
Rear Handle Pin w/ Cotter	J-7613-C-12					
Liner Retainer Key w/ Cotter	J-7613-A-52					
Hinge Spring Assembly	J-7613-211					

Description	DU Long					
	4-1/2"			5-1/2"		7"
Body Size	4-1/2"			5-1/2"		7"
Pipe Size	3-1/2"	4"	4-1/2"	5"	5-1/2"	7"
Slip	J-7613-64-B	J-7613-64-A	J-7613-64	J-7613-65-A	J-7613-65	J-7613-66-70
Insert	J-7613-C-82	J-7613-FF-81	J-7613-A-81	J-7613-G-81	J-7613-H-81	J-7613-EE-81
Front Handle (Steel)	J-7613-5187					
Rear Handle (Steel)	J-7613-5195					
Front Handle (Flex)	J-7613-5187-F					
Rear Handle (Flex)	J-7613-5195-F					
Hinge Pin w/ Cotter	J-7613-A-12					
Front Handle Pin w/ Cotter	J-7613-B-12					
Rear Handle Pin w/ Cotter	J-7613-C-12					
Liner Retainer Key w/ Cotter	J-7613-A-67					
Hinge Spring Assembly	J-7613-211					

DCS Style Drill Collar Slips

The DCS Style Slip uses button style inserts for maximum holding of the collars and tools slip sizes can easily be changed with adding or removing segments or changing button sizes. They use the full wrap around design for a positive and fast slip settings. They are offered in three sizes, short, medium and long to cover all tubular.



Drill Collar Slip	DCS-S		DCS-R		DCS-L					
OD Size	3" - 4"	4" - 4-7/8"	4-1/2" - 6"	5-1/2" - 7"	6-3/4" - 8-1/4"	8" - 9-1/2"	8-1/2" - 10"	9-1/4" - 11-1/4"	11" - 12-3/4"	12" - 14"
Slip	J-2572	J-2573	J-2552	J-2550	J-2503	J-2507	J-2530	J-2508	J-2534	J-2536
Circular Buttons	J-2628	J-2620	J-2628	J-2620	J-2630	J-2630	J-2627	J-2630	J-2625	J-2630
Qty Per Slip	49		63		88	96	104	112	136	136
Hinge Pin w/ Cotter Pin	J-2525				J-2520					
Handle Pin c/w Washer & Cotter Pin							J-3769			
Right & Left Handle							J-3765			
Center Handle							J-3766			
Right & Left Handle (Flex)							J-3767-F			
Center Handle (Flex)							J-3766-F			

Woolley A Style Drill Collar Slips

The Woolley A Style Slip comes with trussed style segments give maximum support, they use three piece inserts which levels easy for complete gripping action.



Woolley A Style Drill Collar Slips	
Part Number	Description
J-709-420-0100	Slip 4-1/4" - 5-3/4"
J-709-540-0100	Slip 5-1/2" - 7"
J-709-660-0100	Slip 6-3/4" - 8-1/4"
J-738-144-0200S	Steel Handle
J-738-144-11F	Flex Handle
J-707-000-0100	Hinge Pin
J-707-000-0300	Handle Retainer
J-117-005-0400	Cotter Pin f/ Handle & Hinge Pin
J-707-000-0600	Insert Retainer
J-117-005-0200	Cotter Pin f/ Insert Retainer

Drill Collar Slips C-1

The C1 Style Drill Collar Slip has a multi-segment design which allows it to hinge so that it fits all drill collars within the slip's size range. The same renewable liner is used on all slips. This liners is retained by a liner keeper and bolt instead of a retainer key and cotter. The light weight design makes for easy handling.



Drill Collar Slips C-1			
Body Size	4-1/4" - 5-3/4"	5-1/2" - 7"	6-3/4" - 8-1/4"
Slip	J-7638-5105	J-7638-5106	J-7638-5107
Hinge Pin C/W Cotter	J-7638-B-59		
Handle	J-7638-A-78		
Handle (Flex)	J-7638-A-78-F		
Liner Keeper C/W Bolt & Washer	J-7638-5113		
Replaceable Liner	J-7638-A-116		

CMSXL Style Casing Slips

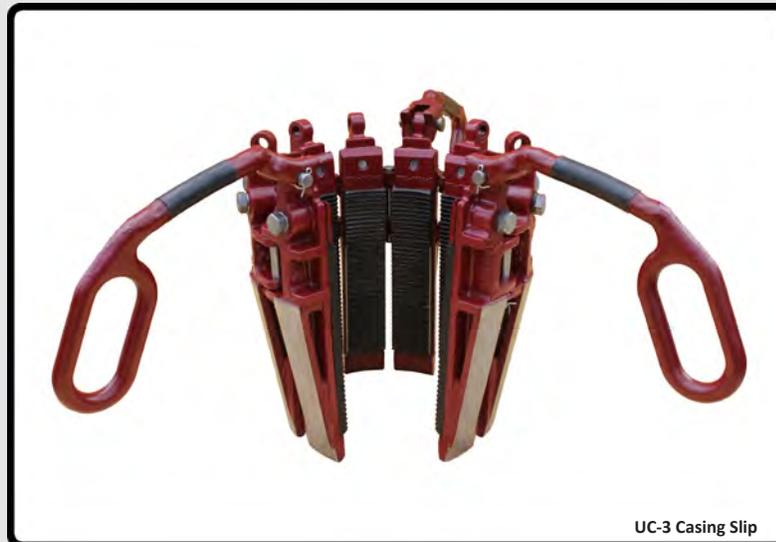
The CMSXL Style Slips feature a full wrap around grip to meet the heavy casing loads, they use button type inserts for maximum grip and range in sizes from 6-5/8" – 30" O.D. casing.



CMSXL Style Casing Slips														
Casing Size	6-5/8"	7"	7-5/8"	8-5/8"	9-5/8"	10-3/4"	11-3/4"	13-3/8"	16"	18-5/8"	20'	24"	26"	30"
Slip	J-5315	J-5301	J-5303	J-5305	J-5307	J-5309	J-5311	J-5313	J-5325	J-5333	J-5329	J-5331	J-5346	J-5342
Circular Buttons	J-2628	J-2619	J-2630	J-2630	J-2630	J-2630	J-2627	J-2630	J-2631	J-2626	J-2631	J-2631	J-2631	J-2631
Qty Per Slip	144	144	144	156	168	180	204	216	252	300	312	360	396	444
Right End Segment	J-5320													
Left End Segment	J-5321													
Intermediate Segment	J-5322													
Hinge Pin w/ Cotter Pin	J-2525													
Handle Pin c/w Washer & Cotter	J-3769													
Right & Left Handle	J-3765													
Center Handle	J-3766													
Right & Left Handle (Flex)	J-3767-F													
Center Handle (Flex)	J-3766-F													

Baash-Ross UC Style Casing Slips

The UC-3 style slips have 3" taper (except 8-5/8" down which has 4" taper). Sizes offered are 8-5/8" to 13-3/8".



UC Style Casing Slips	
Part Number	Description
J-7704-5031	UC-4 Casing Slip 8-5/8" x 8-5/8"
J-7704-5028	UC-3 Casing Slip 10-3/4" x 10-3/4"
J-7704-5025	UC-3 Casing Slip 13-3/8" x 13-3/8"
J-7704-A-17	Handle
J-7704-A-17-F	Handle (Flex)
J-7704-A-16	Handle Pin w/ Cotter
J-7704-B-16	Hinge Pin w/ Cotter Pin
J-7704-A-29	Liner Retainer Key w/ Cotter Pin f/8-5/8" Slip
J-7704-5024	Keeper Assembly c/w Bolt & Washer f/ 10-3/4" & 13-3/8" Slips

Single Joint Elevators

The SJ Elevator is designed to enable the drilling rig crew to hoist up the tubular safely to the rig floor without damaging the shoulder or the threads. Offered for Drill Pipe up to 5-1/2".



Single Joint Elevators	
Part Number	Description
J-SJ0238	Single Joint Elevator 2-3/8"
J-SJ0278	Single Joint Elevator 2-7/8"
J-SJ0350	Single Joint Elevator 3-1/2"
J-SJ0400	Single Joint Elevator 4"
J-SJ0440	Single Joint Elevator 4-1/2"
J-SJ0500	Single Joint Elevator 5"
J-SJ0550	Single Joint Elevator 5-1/2"
J-SJ0658	Single Joint Elevator 6-5/8"
J-SJ0700	Single Joint Elevator 7"
J-SJ0758	Single Joint Elevator 7-5/8"
J-SJ0858	Single Joint Elevator 8-5/8"
J-SJ0958	Single Joint Elevator 9-5/8"
J-SJ1034	Single Joint Elevator 10-3/4"
J-SJ1134	Single Joint Elevator 11-3/4"
J-SJ1338	Single Joint Elevator 13-3/8"
J-SJ1600	Single Joint Elevator 16"
J-SJ1858	Single Joint Elevator 18-5/8"
J-SJ2000	Single Joint Elevator 20"
J-SJ2400	Single Joint Elevator 24"
J-SJ3000	Single Joint Elevator 30"

YT Style Slip Type Elevator

The YT Style Elevator is rated at 75 tons and size range from 1.315" - 3-1/2". Offered in two size slip bodies, the interlocking slips form a circle around tubing, assuring a uniform grip.



Size	3-1/2" Slip Body		2-7/8" Slip Body						
	3-1/2"	2-7/8"	2-7/8"	2-3/8"	2-1/16"	2"	1.900"	1.660"	1.315"
Slip Assembly	J-23108-33	J-23108-34	J-23108-35	J-23108-36	J-23108-37	J-23108-38	J-23108-39	J-23108-40	J-23108-41
Slip	J-23108-31		J-23108-27						
Insert	J-24774	J-30358	J-24773	J-29255	J-29256		J-29257	J-29258	J-29259
Insert Spacer	J-24507		J-24508						
Setting Ring	J-27813-3	J-27695-3		J-27694-3	J-27812-3	J-28821-3	J-27811-3	J-27810-3	J-29001-3

YT Style Slip Type Elevator	
Part Number	Description
J-23105-3	YT Elevator less Slip Assembly
J-15348	Latch
J-24182	Latch Pin
J-12972	Latch Lock
J-12946	Latch Cam
J-13530	Latch Lock Pin
J-12978	Latch Spring
J-23630-1	Guide Plate
J-939098-75	Guide Plate Screw
J-23113	Slip Spring
J-23115	Slip Retainer Bolt
J-23116	Hinge Pin
J-12529	Door Lug Pin
J-9519-1	Link Block Assembly
J-9519	Link Block
J-8151	Link Block Pin
J-8145-1	Link Block Bolt Assembly
J-29464	Latch Pin Dowel
J-940308-1	Grease Fitting

MYT Style Slip Type Elevator

The MYT Style Elevator is rated at 40 tons. The lightweight tubing elevator is ideal for handling tubing and small casing within its range.

MYT Style Slip Type Elevator	
Part Number	Description
J-29328	MYT Elevator less Slip Assembly
J-30708	Latch and Latch Lock Assembly
J-30652	Latch
J-30653	Latch Lock
J-29335	Latch Lock Pin
J-29349	Latch Lock Spring
J-947128-172	Latch Lock Pin Ret. Pin
J-29334	Latch Pin
J-29338	Latch Spring
J-30841	Latch Lock Door Pin
J-29333	Hinge Pin
J-29337-1	Link Block Assembly
J-29337	Link Block
J-29359	Link Block Pin
J-29358-1	Link Block Bolt Assembly
J-29336	Slip Bolt
J-29340	Slip Spring
J-940308-1	Grease Fitting

2-7/8" Slip Body		
SIZE	2-7/8"	2-3/8"
Slip Assembly	J-29343-1	J-29343-2
Reducing Insert	J-24773	J-29255
Setting Ring	J-29348	J-29345

HYT Style Slip Type Elevator

MKP carries the HYT Style Slip Type Elevator rated for 150 tons. Size range offered is 2-7/8" - 3-1/2".

HYT Style Slip Type Elevator	
Part Number	Description
J-39284	HYT Slip Type Elevator 150 Ton
J-39259-2	HYT Slip Assy 2-7/8"
J-39258-2	HYT Slip Assy 3-1/2"

HYC Style Slip Type Elevator

MKP carries the HYC Style Slip Type Elevator rated for 200 tons. Size range offered is 4-1/2" - 7".



HYC Style Slip Type Elevator	
<i>Part Number</i>	<i>Description</i>
J-55310	HYC Slip Type Elevator 200 Ton Less Slip Body
J-55511	HYC Slip Assy 4 1/2"
J-55513	HYC Slip Assy 5-1/2"
J-55515	HYC Slip Assy 7"
J-70009	HYC Slip Assy 7-5/8"
J-16408	HYC Inserts 4-1/2"
J-16401	HYC Inserts 7"

YC Style Slip Type Elevator

MKP carries the YC Style Slip Type Elevator rated for 75 tons. Size range offered is 4-1/2" - 5-1/2".

YC Style Slip Type Elevator	
<i>Part Number</i>	<i>Description</i>
J-24140	YC Slip Type Elevator Complete less Slips
J-24072-5	YC Slip Assy 4-1/2" c/w 4-1/2" Inserts and Setting Plate
J-24072-2	YC Slip Assy 5-1/2" c/w 5-1/2" Inserts and Setting Plate
J-30211	YC Setting Plate Bolt
J-30213	YC Rubber Bushing

TA Style Elevator

The TA Style Elevators are for use on tubing, casing and drill collars. The elevators are balanced for easy handling with safety lock and latch and guarded operating handles. Sizes range from 35 ton to 150 ton and cover all size tubular up to 11-1/4".



TA100

TA Style Elevators

Elevator	Upset/Non Upset	1.050"	1.315"	1.660"	1.900"	2-3/8"	2-7/8"	3-1/2"	4"	4-1/2"
TA35	Non	J-32387-150	J-32387-152	J-32387-154	J-32387-156	J-32387-158	J-32387-160			
	Upset	J-32387-151	J-32387-153	J-32387-155	J-32387-157	J-32387-159	J-32387-161			
TA100	Non					J-32383-158	J-32383-160	J-32384-162	J-32384-164	J-32384-129
	Upset					J-32383-159	J-32383-161	J-32384-163	J-32384-165	J-32384-167

TA150	Range	5-1/2" - 8-5/8"	8-5/8" - 11-1/4"
	Base Frame	J-32754-XXX	J-39347-XXX

TA Style Elevator Parts

Frame	TA35		TA100		TA150	
	J-32387	J-32386	J-32384	J-32383	J-32754	J-39342
Latch Lock Assembly	J-32484		J-32382			J-32753
Latch	J-32446		J-32380			J-32752
Latch Lock	J-32447		J-32381			J-32752-2
Latch Lock Pin	J-36685		J-36208			J-36207
Latch Lock Spring	J-32483		J-32469			J-32758
Hinge Pin	J-32917	J-32915	J-32919	J-32915		J-32924
Latch Pin	J-32424-4	J-32424-2	J-32424-1	J-32424-2		J-32762
Latch Spring	J-32482		J-32470			J-32760
Link Block	J-23404		J-32430			J-9519
Link Block Pin	J-23405		J-29359			J-8151
Lockbar	J-32918	J-32892	J-32920	J-32892		J-32925
Cotter Pin	J-939667-19		J-939667-19	J-939667-19		J-939672-19
Link Block Bolt	J-23406	J-939051-69	J-939051-65			J-8145
Link Block Nut	J-939484-5	J-939484-7				J-8150
Grease Fitting	J-940308-1					
Expansion Plug	J-944048-1	J-944048-16	J-944048-19	J-944048-16		J-944048-22

SLX Style Elevator

The SLX Style Side Door Elevators are designed for all size casing up to 24" with load rating of 65 ton to 250 ton. The shielded safety latch protects the latch from accidentally opening; the SLX design has a double latch safety feature.

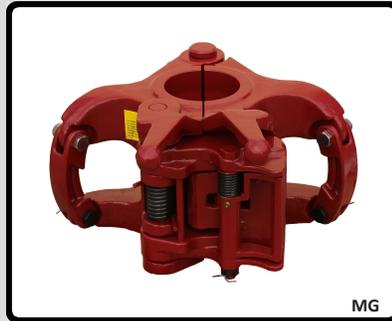


SLX 150

SLX Style Elevator					
Range	6-5/8"-8-5/8"	9-5/8"-10-3/4"	11-3/4"-13-3/8"	16"	18-5/8"-20"
Base Frame	J-31239-XXX	J-33950-XXX	J-33982-XXX	J-34087-XXX	J-33632-XXX
Latch	J-31331			J-33634	
Latch Lock	J-31332			J-33635	
Latch Lock Pin	J-29980-4			J-32424-2	
Latch Lock Spring	J-31404			J-33658	
Hinge Pin	J-34611	J-33953	J-33985	J-33646	
Latch Pin	J-32424-3			J-33645	
Latch Spring	J-31383			J-33657	
Roller	J-31407				
Roller Pin	J-31584				
Lock Bar	J-34614	J-32918	J-32892		
Link Block	J-9519				
Link Block Pin	J-8151				
Link Block Bolt	J-8145				
Link Block Nut	J-8150				
Cotter Pin	J-939667-20				
Grease Fitting	J-940308-1				

Drill Pipe Elevators

The G Series 18° Bottleneck Elevators provide center latch operation for running external upset drill pipe from 100 – 350 ton loads. They will exceed the API safety factor for handling it's load capacity. MKP Elevators are made of high quality heat treated alloy steel. The "G" type elevators have a safety latch and latch lock combination to prevent equipment induced accidents.



Drill Pipe Elevators							
Size	2-3/8"	2-7/8"	3-1/2"	4"	4-1/2"	5"	5-1/2"
MG	J-30157-116	J-30157-118	J-30157-120	J-30157-121	J-30157-122	J-30157-123	NA
RG	J-30156-116	J-30156-118	J-30156-120	J-23540-121	J-23540-122	NA	NA
MGG	NA	NA	J-35005-120	J-35005-121	J-35005-122	J-35005-123	J-35005-124
GG	NA	NA	NA	J-31068-121	J-31068-122	J-31068-123	J-31068-124

Drill Pipe Elevator Parts					
Description	GG Part Number	MGG Part Number	RG Part Number		MG Part Number
Size	4" - 5-1/2"	3-1/2" - 5-1/2"	2-3/8" - 3-1/2"	4" - 5-1/2"	2-3/8" - 5-1/2"
Latch	J-31071	J-34906	J-23543	J-13151	J-11763
Latch Lock	J-13152		J-23729	J-13152	J-11764
Latch Pin	J-31073	J-34097	J-23544	J-24045	J-26814
Latch Pin Dowel	J-18608	J-34911	J-8156	J-29468	J-8156
Latch Spring	J-18416	J-34909	J-23546	J-13155	J-11766
Latch Lock Spring	J-13188				NA
Latch Lock Bolt	J-15101		NA	NA	
Door Lug Pin	J-13190		J-23547	J-13190	J-12529
Door Catch Arm Pin	J-12916		NA	NA	
Door Catch Spring	J-9561		NA	NA	
Door Catch Arm Assembly	J-13821		NA	NA	
Stop Spring	J-13185		J-23548	J-13185	
Hinge Pin	J-31072	J-34908	NA	NA	J-26813
Link Block Assembly	J-9519-1				J-26817-1
Link Block	J-9519				J-26817
Link Block Pin	J-8151				J-8031
Link Block Bolt Assembly	J-8145-2				J-8145-2
Hinge Pin Lock Bar	J-31074	J-34910	NA	NA	
Cotter Pin	J-939667-19		NA	NA	
Latch Lock Nut	J-939484-8		NA	NA	
Grease Fitting	J-940308-1		NA	NA	
Latch Cam					J-11581

BJ Style 250 Ton Spider / Elevator

The MKP BJ Type 250 Ton Manual Spider/Elevator is designed to handle pipe and casing sizes from 2-3/8" to 7-5/8" using four different slip sizes. The body can be dressed as a spider or an elevator. It is designed and manufactured according to API Spec 8C.

* 350 Ton BJ Style and Varco Style also available.

*Air Operated available as well.



250 Ton Spider / Elevator

BJ Style 250 Ton Spider / Elevator	
Part Number	Description
J-50364	7-5/8" 250 Ton Manual Spider/Elevator
J-50006293-512	7-5/8" 250 Ton Manual Spider/Elevator Slip Assy 5-1/2"
J-50006294-700	7-5/8" 250 Ton Manual Spider/Elevator Slip Assy 7-5/8" x 7"
J-51922	7-5/8" 250 Ton Manual Spider top Guide Plate Assy 4-1/2" - 5-1/2"
J-51924	7-5/8" 250 Ton Manual Spider Top Guide Plate Assy 6-5/8"- 7-5/8"
J-50422-2	7-5/8" 250 Ton Manual Spider Upper Guard Assy
J-31008	7-5/8" 250 Ton Manual Spider adapter Plate
J-51927	7-5/8" 250 Ton Manual Elevator Bottom Guide Plate Assy 4-1/2" - 5-1/2"
J-51928	7-5/8" 250 Ton Manual Elevator Bottom Guide Plate Assy 6-5/8"- 7-5/8"
J-31021	7-5/8" 250 Ton Manual Elevator Bell Guide Assy

BJ Style Tong

The BJ Style Tong covers all pipe sizes up to 36" with extension heads in the B series; MKP offers the tongs with torque ratings up to 100,000 FT/LBS. The multiple latch steps on the jaws will cover different size pipe without removing jaws.



BJ LF Style Tong	
Part Number	Description
J-30121	Tong Complete w/o Lug Jaws
J-23916-1	Hanger Assembly
J-23921	Hinge Pin
J-8150	Hinge Pin Nut
J-23914-1	Latch Assembly
J-23909-1	Long Jaw Assembly
J-23910-1	Short Jaw Assembly
J-23911-1	Latch Lug Jaw Assembly (2-3/8" - 3-1/2")
J-23912-3	Latch Lug Jaw Assembly (3-1/2" - 5")
J-23913-1	Latch Lug Jaw Assembly (4-3/4" - 6-1/4")
J-25010-1	Latch Lug Jaw Assembly (5-3/4" - 7")

BJ C Style Tong	
Part Number	Description
J-30117	Tong Complete w/o Lug Jaws (40-1/2" Lever)
J-30117-1	Tong Complete w/o Lug Jaws (30-7/8" Lever)
J-13264-1	Hanger Assembly
J-11520-1	Hinge Pin (Drop In)
J-11521-1	Hinge Pin (Threaded)
J-11522	Hinge Pin Nut
J-11933-1	Latch Assembly
J-11511-1	Long Jaw Assembly
J-11513-1	Short Jaw Assembly (7-5/8" - 10-3/4")
J-11513-5	Short Jaw Assembly (2-3/8" - 7")
J-30728-1	Latch Lug Jaw Assembly (2-3/8" - 3.668")
J-30727-1	Latch Lug Jaw Assembly (2-7/8" - 4-1/4")
J-11939-4	Latch Lug Jaw Assembly (3-1/2" - 5-1/4")
J-11940-2	Latch Lug Jaw Assembly (5-1/4" - 7")
J-11941-1	Hinge & Latch Lug Jaw Assembly (7" - 8-5/8")
J-11941-2	Latch Lug Jaw (7" - 8-5/8")
J-11942-1	Hinge Jaw Assembly (7" - 8-5/8")
J-13799-1	Hinge & Latch Lug Jaw Assembly (9-5/8" - 10-3/4")
J-13799	Latch Lug Jaw (9-5/8" - 10-3/4")
J-13798-1	Hinge Jaw Assembly (9-5/8" - 10-3/4")

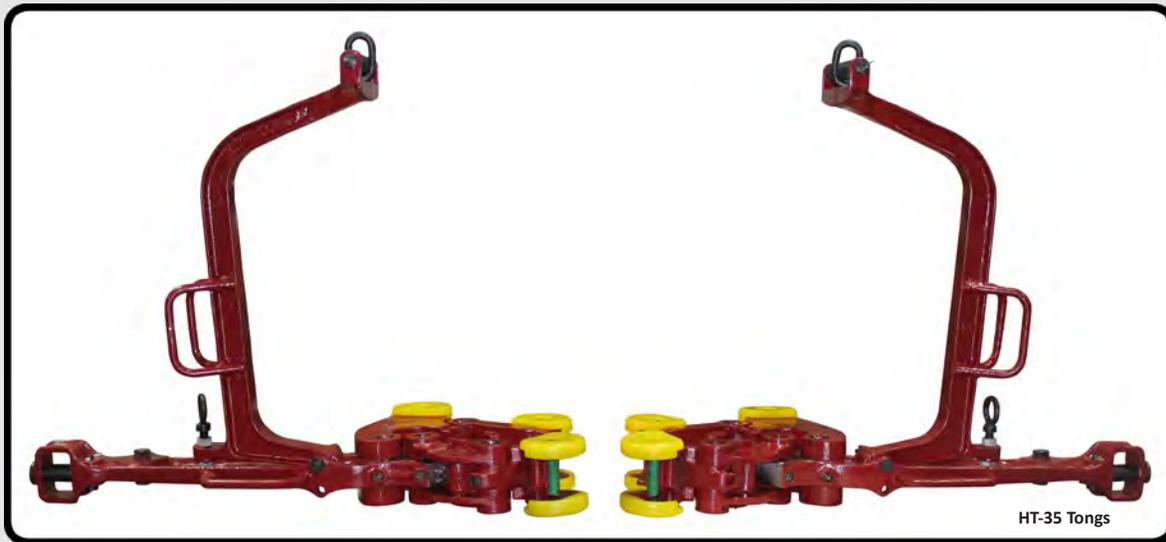
BJ B Style Tong	
Part Number	Description
J-30114	Tong Complete w/o Lug Jaws (48" Lever)
J-30114-1	Tong Complete w/o Lug Jaws (42" Lever)
J-30114-2	Tong Complete w/o Lug Jaws (36" Lever)
J-26782	Hanger Assembly
J-11140	Hinge Pin (Drop In)
J-11141	Hinge Pin (Threaded)
J-11142	Hinge Pin Nut
J-11138-1	Latch Assembly
J-11194-1	Long Jaw Assembly
J-11197-1	Short Jaw Assembly
J-11765-1	Latch Lug Jaw Assembly (3-1/2" - 5")
J-11196-3	Latch Lug Jaw Assembly (4-1/4" - 6-3/4")
J-11196-2	Latch Lug Jaw Assembly (6-5/8" - 9")
J-11297-1	Latch Lug Jaw Assembly (9" - 10-3/4")
J-13285-1	Latch Lug Jaw Assembly (11-3/4")
J-24592-1	Latch Lug Jaw Assembly (13-3/8")

BJ DB Style Tong	
Part Number	Description
J-30111	Tong Complete w/o Lug Jaws
J-26782	Hanger Assembly
J-25860	Hinge Pin
J-24528	Hinge Pin Nut
J-25853-1	Latch Assembly
J-30064-2	Long Jaw Assembly
J-30065-2	Short Jaw Assembly
J-30062-2	Lug Jaw (3-1/2" - 8-1/4")
J-30707-1	Lug Jaw Assembly (8" - 11-1/4")
J-30067	Lug Jaw Assembly (11-3/4" - 14-3/8")
J-30069	Lug Jaw (16" - 17")
J-30068-3	Hinge Jaw Assembly (8-1/4" - 17")

BJ SDD Style Tong	
Part Number	Description
J-31054	Tong Complete w/o Lug Jaws
J-31055-1	Lever Assembly
J-31064	Hinge Pin
J-24528	Hinge Pin Nut
J-31058-1	Latch Assembly
J-31056-1	Long Jaw Assembly
J-31057-1	Short Jaw Assembly
J-31059-1	Lug Jaw Assembly (4" - 8-1/2")
J-31060	Lug Jaw Assembly (8-1/2" - 12")
J-31061	Lug Jaw Assembly (12" - 15")
J-31063	Lug Jaw Assembly (15-3/4")
J-31062	Lug Jaw Assembly (16" - 17")
J-31065-1	Hinge Jaw Assembly (8-1/2" - 17")

HT Style Tongs

The HT Style Tongs are designed for making up and breaking connections of tubular goods with capacities up to 100,000 Lbs/ft. These tongs are designed with more safety features to prevent injury.



HT-35	
<i>Part Number</i>	<i>Description</i>
J-200620-2	Tong 4-1/2" Lever Complete Less Lug Jaws (2-3/8"-7" Short Jaws) c/w Safety Handles
J-200626-1	BJ Type HT35 Latch c/w Safety Handles
J-200080-2	BJ Type HT35 Hinge and Latch Lug Jaw Assy 7" - 8-5/8" c/w Safety Handles
J-200081-2	BJ Type HT35 Hinge and Latch Lug Jaw Assy 9-5/8" - 10-3/4" c/w Safety Handles
J-200623-1	BJ Type HT35 Long Jaw Assy c/w Safety Handles
J-200076-1	BJ Type HT35 Lug Jaw 2-3/8" - 3.668" c/w Safety Handles
J-200077-1	BJ Type HT35 Lug Jaw 2-7/8" - 4-1/4" c/w Safety Handles
J-200078-1	BJ Type HT35 Lug Jaw 3-1/2" - 5-1/4" c/w Safety Handles
J-200079-1	BJ Type HT35 Lug Jaw 5-1/4" - 7" c/w c/w Safety Handles
J-3000-HT35	Safety Tong Handle for HT35 (set)
J-200630-1	BJ Type HT35 Tong Hanger

HT-55	
<i>Part Number</i>	<i>Description</i>
J-200560	Tong Complete w/o Lug Jaws (48" Lever)
J-200560-1	Tong Complete w/o Lug Jaws (42" Lever)
J-3000-HT	Safety Tong Handle
J-203344	Hanger Assembly
J-200572	Hinge Pin Nut
J-200567	Hing Pin Threaded
J-200563-1	Long Jaw Assembly
J-200564-1	Short Jaw Assembly
J-200566-1	Latch Jaw Assembly
J-200083-1	Lug Jaw Assembly (Range 3-1/2" - 5")
J-200084-1	Lug Jaw Assembly (Range 5" - 6-3/4")
J-200085-1	Lug Jaw Assembly (Range 6-5/8" - 9")
J-200086-1	Lug Jaw Assembly (Range 9" - 10-3/4")
J-200087-1	Lug Jaw Assembly (Range 11-3/4")
J-200089-1	Lug Jaw Assembly (Range 12-3/4" - 13")
J-200090-1	Lug Jaw Assembly (Range 13-3/8")

HT-65	
<i>Part Number</i>	<i>Description</i>
J-200540	Tong Complete Less Lug Jaw c/w Safety Handles
J-203344-36	Hanger Assy
J-25860	Hinge Pin
J-24528	Hinge Pin Nut
J-200542-1	Long Jaw Assy c/w Safety Handles
J-200543-1	Short Jaw Assy
J-200544-1	Latch Assy c/w Safety Handles
J-200545-1	Hinge Jaw Assy
J-200546-1	Lug Jaw 3-1/2" - 8-1/4" c/w Safety Handles
J-200547-1	Lug Jaw 8" - 11-1/4" c/w Safety Handles
J-200548-1	Lug Jaw 11-3/4" - 14-3/4" c/w Safety Handles
J-200549-1	Lug Jaw 16" - 17" c/w Safety Handles

HT-100	
<i>Part Number</i>	<i>Description</i>
J-200071	Tong Complete Less Lug Jaw c/w Safety Handles
J-200074-1	Short Jaw Assy
J-200072-1	Long Jaw Assy c/w Safety Handles
J-200073-1	Latch Assy c/w Safety Handles
J-200662-1	8-1/2" - 17" Hinge Jaw Assy
J-200663-1	Lug Jaw 4" - 8-1/2" c/w Safety Handles
J-200664	Lug Jaw 8-1/2" - 12" c/w Safety Handles
J-200665	Lug Jaw 12" - 15" c/w Safety Handles
J-200666	Lug Jaw 15-3/4" c/w Safety Handles
J-200667	Lug Jaw 16" - 17" c/w Safety Handles
J-203344-36	Tong Hanger Assembly (new style)
J-200204	Hinge Pin

Web Wilson Style Tongs

The Web Wilson Style Tongs come with torque ratings from 20,000 – 55,000 lbs for tubing, casing, and drill strings, all tongs are made of cast Alloy steel. The interchangeable lug jaw design permits tongs to handle most pipe sizes up to 13-3/8". The stirrup –type self locking latch reverses the possibility of unlatches under load.



Web Wilson C Style Tongs	
Part Number	Description
J-8531-5013	Tong Complete w/o Lug Jaws
J-4215	Lug Jaw (2-3/8" - 3-1/2")
J-429	Lug Jaw (2-7/8" - 4-1/4")
J-427	Lug Jaw (4" - 5-3/4")
J-423	Lug Jaw (5-3/4" - 7")
J-428	Lug Jaw (7-1/4" - 8-5/8")
J-4212	Lug Jaw (9-5/8" - 10-3/4")
J-422	Long Jaw
J-424	Short Jaw
J-425	Latch
J-426	Hanger
J-4210	Latch Spring
J-4211	Hinge Pin
J-4321	Die
J-4217	Hanger Adjustment Bolt & Nut
J-4217	Lever End Bolt & Nut
J-10037	Tong Die Retainer Pin

Web Wilson B Style Tongs

Part Number	Description
J-8531-5019	Tong Lever Complete w/o Lug Jaws (39-5/8" Lever)
J-8531-5065	Tong Lever Complete w/o Lug Jaws (31-5/8" Lever)
J-442	Long Jaw
J-444	Short Jaw
J-445	Latch
J-436	Hanger
J-4510	Latch Spring
J-4411	Hinge Pin
J-4521	Die
J-4538	Hanger Adjustment Bolt & Nut
J-4538	Lever End Bolt & Nut
J-10037	Tong Die Retainer Pin
J-448	Lug Jaws (2-3/8" - 3-3/4")
J-438	Lug Jaws (3-1/2" - 4-5/8")
J-449	Lug Jaws (4-1/2" - 5-3/4")
J-443	Lug Jaws (5-1/4" - 7-1/4")
J-4420	Lug Jaws (6-7/8" - 8-5/8")
J-4421	Lug Jaws (9" - 10-3/4")

Web Wilson AAX Style Tongs

Part Number	Description
J-8531-5025	Tong Complete w/o Lug Jaws (49-1/2" Lever)
J-8531-5057	Tong Complete w/o Lug Jaws (41-1/2" Lever)
J-4522	Lug Jaw (2-7/8" - 3-3/4")
J-4523	Lug Jaw (3-1/2" - 4-1/2")
J-4528	Lug Jaw (4" - 5-1/4")
J-4527	Lug Jaw (5" - 7-1/4")
J-8531-5192	Lug Jaw (6-7/8 - 8-5/8")
J-4524	Lug Jaw (9" - 10-3/4")
J-4529	Lug Jaw (10-3/4 - 11-3/4")
J-4530	Lug Jaw (13-3/8")
J-4512	Long Jaw
J-454	Short Jaw
J-4553	Latch
J-436	Hanger
J-4510	Latch Spring
J-4611	Hinge Pin
J-4731	Die
J-4538	Hanger Adjustment Bolt & Nut
J-4538	Lever End Bolt & Nut
J-10114	Tong Die Retainer Pin

Baash-Ross C & T Style Safety Clamp

The C & T Style Safety Clamp are designed to hold flush joint tubular or other slick tools safely and prevent the dropping of strings into well. The C and T sizes range from 1-1/8" – 15-5/8" with the ease of adding or removing of links.



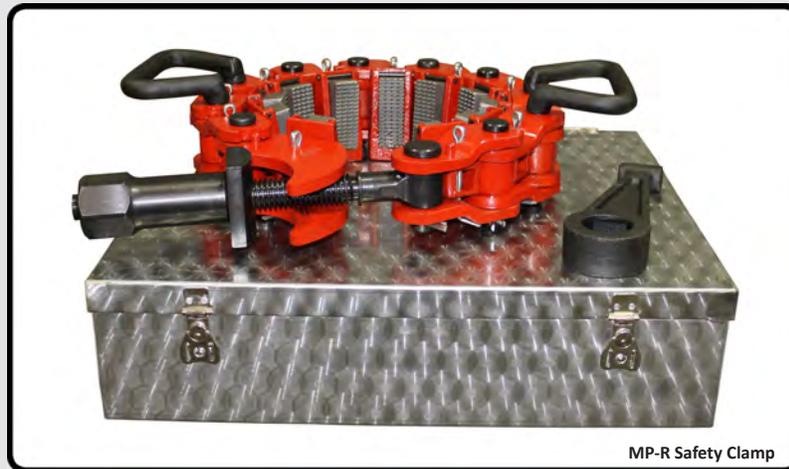
C Style Safety Clamp	
<i>Part Number</i>	<i>Range</i>
J-7624-5007	3-3/4" - 4-5/8"
J-7624-5008	4-1/2" - 5-5/8"
J-7624-5009	5-1/2" - 6-5/8"
J-7624-5010	6-1/2" - 7-5/8"
J-7624-5011	7-1/2" - 8-5/8"
J-7624-5012	8-1/2" - 9-5/8"
J-7624-5013	9-1/2" - 10-5/8"
J-7624-5014	10-1/2" - 11-5/8"
J-7624-5015	11-1/2" - 12-5/8"
J-7624-5016	12-1/2" - 13-5/8"
J-7624-5017	13-1/2" - 14-5/8"
J-7624-5018	14-1/2" - 15-5/8"

T Style Safety Clamp	
<i>Part Number</i>	<i>Range</i>
J-7624-5044	1-1/8" - 2"
J-7624-5045	2-1/8" - 3-1/4"
J-7624-5046	3-1/4" - 4-1/2"

Type C & T Safety Clamp Parts		
<i>Description</i>	<i>Type C Parts</i>	<i>Type T Parts</i>
Link Assembly Complete	J-7624-A-7	J-7624-B-7
Intermediate Link	J-7624-A-1	J-7624-A-18
Slip w/ Cotter Pin	J-7624-A-4	J-7624-A-21
Slip Spring	J-7624-E-5	J-7624-B-21
Link Pin w/ Cotter Pin	J-7624-C-5	
End Link (Screw Side)	J-7624-A-3	J-7624-A-20
End Link (Pivot Block Side)	J-7624-A-24	J-7624-A-19
End Link Pin w/ Chain	J-7624-F-5	
Screw	J-7624-A-5	
Nut	J-7624-B-5	
Wrench	J-7624-A-25	
Pivot Block	J-7624-A-5000	
Pivot Block Pin	J-7624-D-5	
Handle	J-7624-A-6	J-7624-A-22
Handle Link Pin w/ Cotter	J-7624-G-5	
Safety Clamp Box	J-7624-A-36	J-7624-A-9

MP Style Safety Clamp

The MP Style Safety Clamp catches tubular from 2-7/8" – 30-1/2" to safeguard against dropping string with the adjustment of the tool. The head's forged heat treated steel contraction gives this tool long life and dependability. The clamp can also be inserted and fitted with hold down lugs for snubbing operations.



MP-R Safety Clamp

MP Style Safety Clamp		
Style	Size Range	Part Number
MP-S	2-7/8" - 4-1/8"	J-33030
	4" - 5"	J-33031
MP-R	4-1/2" - 5-5/8"	J-33011
	5-1/2" - 7"	J-33012
	6-3/4" - 8-1/4"	J-33013
	8" - 9-1/4"	J-33014
MP-M	9-1/4" - 10-1/2"	J-33015
	10-1/2" - 11-1/2"	J-33016
	11-1/2" - 12-1/2"	J-33017
	12-1/2" - 13-5/8"	J-33018
	13-5/8" - 14-3/4"	J-33019
MP-L	14-3/4" - 15-7/8"	J-33020
	15-7/8" - 17"	J-33021
	17" - 18-1/2"	J-33022
MP-XL	18-1/8" - 19-3/8"	J-33023
	19-3/8" - 20-3/8"	J-33024
	20-3/8" - 21-1/2"	J-33025
	21" - 22-5/8"	J-33032
	22-5/8" - 23-3/4"	J-33033
	23-3/4" - 24-7/8"	J-33034
	24-7/8" - 26"	J-33035
	26" - 27-1/8"	J-33036
29-3/8" - 30-1/2"	J-33039	

Safety Clamp Parts	
Part Number	Description
J-3335	Link Assembly Complete (S Only)
J-3319	Link Assembly Complete (R , M & L)
J-3306	Link w/ Cotter Pin
J-3307	Pin w/ Cotter Pin
J-3325	Die Carrier Assembly (S Only)
J-3324	Die Carrier Assembly (R, M & L)
J-3309	Die Carrier
J-3311	Spring
J-51604-18	Roll Pin
J-51405-28	Cotter Pin
J-3318	Side Link Bar
J-3304	Link Latch (S, R , M & L)
J-3321	Link Latch (XL Only)
J-3308	Screw Pin w/ Cotter Pin
J-3315	Screw Pin Bushing
J-51405-10	Cotter Pin
J-3302	Screw
J-2714	Thrust Washer
J-3303	Makeup Nut
J-3305	Handle
J-3320	Wrench
J-3331	Box

Master Bushings

The MKP Master Bushings are designed for SQ and Pin drive Kelly bushings from sizes 17-1/2" to 37-1/2" rotary tables. The pin drive allows the use of extended insert bowls to meet flush with the top of table which means better slip support and preventing damage to drill pipe. The SQ drive bushing has a 4" deep recess to be used with the SQ drive Kelly bushings. Short and medium style slips are used in the SQ drive for shallower depth and drilling.



Master Bushings						
Make	Size	MPCH	MSPC	MSP/MDSP	MSS	MBSS
API	17-1/2"				J-1006-1	J-1003
	20-1/2"		J-1805-1		J-1007-1	J-1007
	27-1/2"		J-1808-1	J-5429-1	J-1010-1	
Brewster	RSH-18			J-70526-4	J-1006-8	J-1001
	RSB-18					J-1001-B
	RSH-22				J-1008-3	J-1008
	RSH-27-1/2"		J-1808-8	J-5429-2		J-1013
Emsco	17-1/2"				J-1006-1	J-1003
	20-1/2"		J-1805-1	J-70539-4	J-1007-1	J-1006
	27-1/2"		J-1808-1	J-5429-1		J-1010
	37-1/2"	J-6601-2				
Ideco	17-1/2"				J-1006-5	J-1002
	20-1/2"			J-70539-1	J-1007-1	J-1007
	23"		J-1806-1	J-70539-9	J-1008-1	J-1005
	27-1/2"		J-1808-7	J-5429-7	J-1010-7	J-1016
	37-1/2"	J-6601-4				
Oilwell	17-1/2"				J-1006-1	J-1003
	20-1/2"		J-1805-1	J-70539-4		J-1000
	A20-1/2"					J-1006
	27-1/2"		J-1808-1	J-5429-1		J-1010
	37-1/2"	J-6601-3				
National	17-1/2"				J-1006-1	J-1004
	20-1/2"		J-1805-1	J-70539-4	J-1007-1	J-1006
	27-1/2"		J-1808-5	J-5429-5	J-1010-5	J-1012
	37-1/2"	J-6601-1				
Gardner Denver	17-1/2"					J-1003
	20-1/2"					
	22-1/2"					J-1009
	27-1/2"		J-1808-1			J-1010
	37-1/2"	J-6601-7				

Casing Bushings

The MKP Casing Bushings are designed to fit into the rotary table for perfect alignment with the well bore. All bushings are designed to be fitted with insert bowls to accommodate all pipe and casing sizes. The bushings and bowls are designed to be used with the CMSXL slips and all 4 inch tapered slips.

Casing Bushing			
<i>Manufacturer</i>	<i>Rotary Table Size</i>	<i>Casing Size</i>	<i>Casing Bushing/Insert Bowl</i>
All	17-1/2" - 20-1/2"	11-3/4" - 13-3/8"	J-3102
		9-5/8 & 10-3/4	J-1902
All	26 & 27-1/2	18-5/8 & 20	J-3103
		2-3/8 - 8-5/8	J-1809
		11-3/4 & 13-3/8	J-3105
		16	J-3104
All (27-1/2 API)	27-1/2	20	J-6695
		9-5/8 & 10-3/4	J-6114
		11-3/4 & 13-3/8	J-6126
		16	J-6127
NATIONAL	37-1/2 - 49-1/2	20	J-10187
		9-5/8 & 10-3/4	J-6114
		11-3/4 & 13-3/8	J-6126
		16	J-6127
		24	J-11253
		16	J-11486
		18-5/8 & 20	J-16964
		26	J-16454
OILWELL / WIRTH	37-1/2 - 49-1/2	30	J-11763
		20	J-10188
		9-5/8 & 10-3/4	J-6114
		11-3/4 & 13-3/8	J-6126
		16	J-6127
		24	J-6170
		16	J-11486
		18-5/8 & 20	J-16964
EMSCO	37-1/2 - 49-1/2	30	J-12093
		20	J-11553
		9-5/8 & 10-3/4	J-6114
		11-3/4 & 13-3/8	J-6126
		16	J-6127
		24	J-16542
		16	J-11486
		18-5/8 & 20	J-16964
IDECO	37-1/2	30	J-11633
		20	J-10189
		9-5/8 & 10-3/4	J-6114
		11-3/4 & 13-3/8	J-6126
		16	J-6127
		30	J-12092



Kelly Bushings

The MKP Kelly Bushings come in Square and Pin Drive and are designed for shallow, medium depth and deep well drilling. The bushing will accommodate 3" – 6" hex and square Kellys. Standard fiber sleeve bearings are offered with optional roller bearings upon request.

Kelly Bushings				
Kelly Size/Type	KRVS	KRBM	27 HDP	27 HDS
3" Hex	J-1402-30	J-5208-30	J-3650-30	J-3635-30
3-1/2" Hex	J-1402-35	J-5208-35	J-3650-35	J-3635-35
4-1/4" Hex	J-1402-42	J-5208-42	J-3650-42	J-3635-42
5-1/4" Hex			J-3650-52	J-3635-52
6" Hex			J-3650-60	J-3635-60
2-1/2" Sq	J-1401-25	J-5209-25		
3" Sq	J-1401-30	J-5209-30	J-3651-30	J-3636-30
3-1/2" Sq	J-1401-35	J-5209-35	J-3651-35	J-3636-35
4-1/4" Sq	J-1401-42	J-5209-42	J-3651-42	J-3636-42
5-1/4" Sq	J-1401-52		J-3651-52	J-3636-52
6" Sq			J-3651-60	J-3636-60

Roller Assemblies			
Size	KRVS	KRBM	HDP/HDS
3" Hex	J-1450	J-5210	J-3667
3-1/2" Hex	J-1451	J-5211	J-3668
4-1/4" Hex	J-1452	J-2948	J-3669
5-1/4" Hex			J-3672
6" Hex			J-3673
2-1/2" Sq	J-1445	J-2949	
3" Sq	J-1446	J-2943	J-3660
3-1/2" Sq	J-1447	J-2944	J-3661
4-1/4" Sq	J-1448	J-2945	J-3662
5-1/4" Sq			J-3665
6" Sq			J-3666

Mushroom Bushing	
Part Number	Description
J-7991-5003	1RHS4 Type Mushroom Kelly Bushing 4-1/4" SQ

Insert Bowls & Accessories

The MKP Insert Bowls are designed to work with the MPCH and Solid master bushings to accommodate sizes up to 13-3/8". We also provide 2 and 4 leg lifting slings and a bit breaker adapter plate.



Insert Bowls & Accessories	
Part Number	Description
J-1810	API # 3 Insert Bowl 8-5/8" and Smaller
J-1904	API # 2 Insert Bowl 9-5/8" - 10-3/4"
J-1903	API # 1 Insert Bowl 11-3/4" - 13-3/8"
J-6608	API # 3 Insert Bowl w/ Ears 8-5/8" and Smaller
J-6609	API # 2 Insert Bowl w/ Ears 9-5/8" - 10-3/4"
J-6610	API # 1 Insert Bowl w/ Ears 11-3/4" - 13-3/8"
J-1021	Lifting Sling (2 Leg)
J-6699	Lifting Sling (4 Leg)
J-1816	Bit Breaker Adapter Plate

200 Ton Hinged Casing Spider

MKP carries the Baash-Ross style 200 Ton Hinged Casing Spider. Stocking both the 13-3/8" body as well as the 20" body we are sure to meet your casing needs. Reducer bowls also available.



200 Ton Hinged Casing Spider

200 Ton Hinged Casing Spider	
Part Number	Description
J-7704-A-79	200 Ton Hinged Casing Spider 13-3/8"
J-7704-1008	13-3/8" x 10 3/4" Insert Bowl for Spider 3" Taper
J-7704-1009	8-5/8" and Smaller Insert Bowl for Spider 4" Taper
J-7704-A-130	Baash Ross Type 200 Ton Hinged Casing Spider 20"
J-7704-A-134	20" x 16" Insert Bowl for Spider 3" Taper

API Bowls

MKP carries the 100 and 150 Ton API Bowl in both the 8-5/8" and 10-3/4" bodies. Both sizes come with standard 4" taper.



API Bowl

API Bowls	
Part Number	Description
J-17-850	8-5/8" 100 Ton API Bowl
J-17-850-10	10 3/4" 150 Ton API Bowl



CHD Spider

Cavins Style Tubing Spider

The C, CHD and E Style Spiders cover loads up to 175 ton and ranges in size from 1.315" to 7-5/8". The MKP styles are air operated with full circle wrap around inserts to prevent damage to tubing.

Type C & CHD Parts List

Part Number	Description
J-65000	Type "C" Spider Assembly
J-65000HD	Type "HD" Spider Assembly
J-65102	Gate
J-65103	Link (includes two J-65125 Link Bushings and two J-992073-4 Grease fittings)
J-65104	Left Hand Crank Shaft
J-65105	Right Hand Crank Shaft
J-65106	Lift Arm
J-65107	Yoke
J-65108	Safety Guard
J-992073-4	Grease Fitting
J-992005-09	Hex Head Cap Screw
J-992005-07	Hex Head Cap Screw
J-992089-09	Hex Nut
J-992005-01	Hex Head Cap Screw
J-992051-10	Lock Washer
J-65114	Door Pin with Chain
J-992075-144	Lift Arm Set Screw
J-992161-06	Lift Arm Taper Pin
J-65122	Shaft Retaining Clip
J-992073-01	Grease Fitting
J-65124	Crank Shaft Bushing
J-65125	Link Bushing
J-65126	Spacer
J-992285-MH-6-6	Male Disconnect
J-46053	Pipe Nipple
J-65135	Safety Latch
J-65136	Safety Bolt
J-65140	Hydraulic Cylinder
J-992107-15	Jam Nut

Slip Bodies & Inserts

Part Number	Description
J-65622	Slip Bodies 1.315" to 3 1/2" range
J-65652-1.315	1.315" FC Inserts
J-65652-1.660	1.660" FC Inserts
J-65652-1.900	1.990" FC Inserts
J-65652-2.065	2.062" FC Inserts
J-65652-1	2 3/8" FC Inserts
J-65652-2	2 7/8" FC Inserts
J-65652-3	3 1/2" FC Inserts
J-65623	Slip Bodies 3 1/2" to 4 1/2"
J-65653-1	3 1/2" FC Inserts (made to order only)
J-65653-2	4" FC Inserts
J-65653-3	4 1/2" FC Inserts
J-65624-1	5" Solid Slip Bodies
J-65624-2	5 1/2" Solid Slip Bodies
J-65116	Bolt
J-992089-13	Nut
J-65601	Retainer Ring
J-992012-44	Cotter Pin

Type E Parts List

Part Number	Description
J-66007-100	Type "E" Spider Assy
J-66140	Air Cylinder
J-66621-100	Slip Bodies 2-3/8" to 3-1/2" Range
J-66651-1ST	2-3/8" FC Inserts
J-66651-2ST	2-7/8" FC Inserts
J-66651-3ST	3-1/2" FC Inserts
J-66623-100	Slip Bodies 4" to 5-1/2" Range
J-66653-1	4" FC Inserts
J-66653-2	4-1/2" FC Inserts
J-66653-3	5" FC Inserts
J-66653-4	5-1/2" FC Inserts
J-66624-100	Slip Bodies 5-1/2" to 7" Range
J-66654-1ST	7" x 5-1/2" FC Inserts
J-66654-2ST	6-5/8" FC Inserts
J-66654-3ST	7" FC Inserts
J-66625-100ST	7-5/8" Solid Slip Bodies

Baash-Ross Style TS-100 Tubing Spiders

TS-100 manual spiders are used for handling drill collar, casing, tubing and slick pipe. Both the spider body and slips are made of high-quality alloy steel and heat-treated. The bowl and slips are light weight for easy handling



TS 100 Style Tubing Elevator	
<i>Part Number</i>	<i>Description</i>
J-7502-100	Manual Tubing Spider 1.66 - 3.5 Size 100 Ton
J-7502-103	Manual Tubing Spider 3.5 - 5.5 Size 100 Ton
J-7502-104	Slip Assy 3 1/2" Less Inserts
J-7502-70	Slip Assy 5 1/2" Less Inserts
J-7502-A-5069	Slip Insert 3 1/2" x 3-1/2"
J-7502-A-5070	Slip Insert 3-1/2" x 2 7/8"
J-7502-A-5071	Slip Insert 3-1/2" x 2 3/8"
J-7502-A-26	Slip Insert 5 1/2" x 5-1/2"
J-7502-D-26	Slip Insert 5-1/2" x 5"
J-7502-C-26	Slip Insert 5-1/2" x 4 1/2"
J-7502-G-26	Slip Insert 5-1/2" x 4"
J-7502-F-26	Slip Insert 5-1/2" x 3-1/2"

Rod Hooks

The MKP Rod Hooks are designed for load ratings of 25 tons and 35 tons. The special designed snap-in latch mechanism lets rod elevator bail hook in without operator releasing latch and bail is held secure in place until released.

Trico Style Heavy-Lift Short Snap-In Rod Hook	
<i>Part Number</i>	<i>Description</i>
J-RH25	25 Ton Rod Hook
J-RH35	35 Ton Rod Hook
J-RH25RK	25 Ton Repair Kit (Includes: 1 Spring Housing, 1 Latch, 1 Lever, 1 Lever Pin, 1 Latch Pin, 1 Spring)
J-RH35RK	35 Ton Repair Kit (Includes: 1 Latch, 1 Latch Handle, 1 Latch Spring, 2 Roll Pins, 1 Comp. Spring, 1 Clevis Pin)



Rod Elevators

The MKP Style Plate Type Elevators are unique with interchangeable heat treated steel plates for different size rods and ease of changing plates when worn to limit wear on elevator body.



Mud King Rod Elevator	
<i>Part Number</i>	<i>Description</i>
J-RE3478	Rod Elevator 3/4" - 7/8"
J-RE5834	Rod Elevator 5/8" - 3/4"
J-RE7810	Rod Elevator 1"
J-RE0118	Rod Elevator 1-1/8"
J-RE0114	Rod Elevator 1-1/4"
J-RE330102	Rod Elevator Plate Screw
J-RE330103A	Washer 1/2"~5/8"
J-RE330103B	Washer 5/8"~3/4"
J-RE330103C	Washer 3/4"~7/8"
J-RE330203A	Washer 1"
J-RE330203B	Washer 1-1/8"
J-RE330203C	Washer 1-1/4"
J-RERK112118	Rod Elevator 1/2"~1-1/8" Minor Repair Kit
J-RERK114	Rod Elevator 1-1/4" Minor Repair Kit

Rod Wrench

The MKP Sucker Rod Wrenches are made of high-quality, heat-treated alloy steel and feature a smooth “snap-up” hammer-action to quickly break the toughest sucker rod or coupling joint.



Petal Style Sucker Rod Wrench	
<i>Part Number</i>	<i>Description</i>
J-QA1-19	Rod Wrench 5/8" (Sq 7/8")
J-QA2-19	Rod Wrench 3/4" – 7/8" (Sq 1")
J-QA2-19R	Rod Wrench 3/4" – 7/8" (Sq 1-1/8")
J-QA4-19R	Rod Wrench 1" (Sq 1-5/16")
J-QA5-19	Rod Wrench 1-1/8" (Sq 1-1/2")
J-QJ1	Rod Wrench Jaw 5/8" (Sq 7/8")
J-QJ2	Rod Wrench Jaw 3/4" – 7/8" (Sq 1")
J-QJ2R	Rod Wrench Jaw 3/4" – 7/8" (Sq 1-1/8")
J-QJ4	Rod Wrench Jaw 1" (Sq 1-5/16")
J-QJ5	Rod Wrench Jaw 1-1/8" (Sq 1-1/2")

MUD  **KING**
PRODUCTS



DRILLING EQUIPMENT

MUD KING PRODUCTS DRILLING EQUIPMENT

WARRANTY

MUD KING: warrants its products to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from the date of shipment. The liability for any defects shall be limited to the repair or replacement of such products, or, at the option of **MUD KING** the refunding of purchase price. This warranty is expressly in lieu of all other warranties and representations, expressed or implied, and all other obligations or liabilities on the part of MUD KING, which shall not be liable for consequential damages for any breach of warranty. Any controversy or dispute arising out of the sale of **MUD KING** products shall be determined in accordance with the laws of the State of Texas.

**MUD KING PRODUCTS DRILLING EQUIPMENT PARTS
ARE MANUFACTURED STRICTLY FOR MUD KING PRODUCTS**

**MKP, INC. is in no way affiliated with any O.E.M. Names and Part Numbers are for
identification purposes only and are not trade marks or trade names used by MKP, INC.**

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DESIGN FEATURES

- Unitized traveling block and hook reduces the overall length to help satisfy the requirements of operating a top drive.
- Hinged heavy-gauge steel plate sheave guards can be opened quickly with ease for fast line spooling.
- Sheave bearings are individually lubricated double-tapered rollers.
- Internal hydraulic snubber (shock absorber) to reduce impact on tool joints.
- Includes a positioner lock that allows rotating the elevator to the correct position for the derrickman.



MODEL	BHU-80	BHU-110	BHU-120	BHU-150	BHU-200	BHU-250	BHU-350
Max hood load (ton)	80	110	120	150	200	250	350
O.D. of sheaves (in)	24"	26"	26"	30"	36"	36",44"	44"
Number of Sheaves	3	4	4	4	5	5	5
Dia. of wire line (in)	1"	1"	1"	1" 1-1/8"	1-1/8" 1-1/4"	1-1/4"	1-1/4"
Major hook opening (in)	6-1/2"	6-1/2"	7-1/2"	6"	7"	7-1/2"	7-1/2"
Spring travel (in)	4-3/4"	4-3/4"	4-3/4"	6-1/2"	5-1/2"	7"	7"
Overall dimensions (LxWxH) (in)	83"x26"x16"	95"x28"x24"	100"x28"x28"	116"x33"x23"	134"x38"x26"	142"x38(46)x31"	160"x47"x34"
Weight (lbs)	3200	4100	4520	6900	10130	13500	14800

DESIGN FEATURES.

- Equipped with standard bails.
- The washpipe and packing assembly are cartridge type and can be replaced without disconnecting the rotary hose and/or gooseneck.
- Floating washpipe design for even wear.
- Main bearing is an extra-heavy tapered roller design.
- Equipped with 4" API hose connection.
- Extended lower stem



MODEL		SW-150	SW-200	SW-250	SW-350	SW-500
Max Static Load Rating (ton)		150	200	250	350	500
Max Speed (r/min)		300	300	300	300	300
Max Working Pressure (PSI)		5000	5000	5000	5000	5000
Diameter of Stern (in)		5-1/2"	6-1/2"	7-3/4"	7-3/4"	7-3/4"
Washpipe Size (in)		2-1/2"	2-3/4"	3"	3"	3"
Connections	Steam Coupling	4-1/2" REG LH	4-1/2" REG LH	6-5/8" REG LH	6-5/8" REG LH	7-5/8" RG LH
	Sub, Double Pin	4-1/2" REG, 6-5/8" REG LH	4-1/2" REG, 6-5/8" REG LH	6-5/8" REG LH	6-5/8" REG LH	7-5/8" RG LH
	Gooseneck	4" LP	4" LP	4" LP	4" LP	4" LP
Overall Dimension (LxWxH) (in)		85" x 25" x 25"	112" x 33" x 30"	117" x 42" x 34"	119" x 41" x 39"	124" x 44" x 36"
Weight (lbs)		1713	2425	5512	5952	5953

DESIGN FEATURES

- Rotary table shaft extension and its central hole conform to API-7K.
- Pin transmission type suitable for API Standard Square or Hexagonal Kelly roller bushing.
- Double lock system for forward and reverse rotation.
- Master Bushings and insert bowls are of an OEM equivalent.



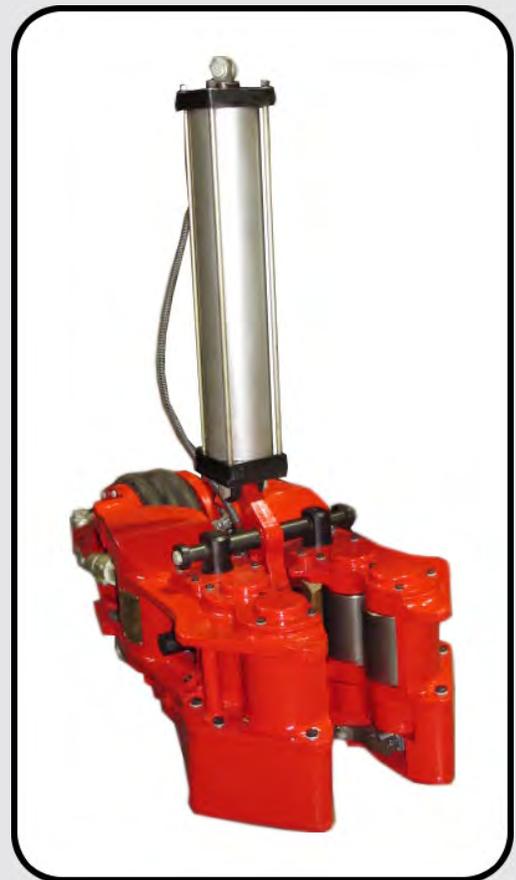
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Mud King Products' Rotary Table With Master Bushing & Insert Bowl Conform to Council Directive 94/9/EC (ATEX) Category 2 Non-Electrical Equipment

MODEL		RT175-44	RT205-44	RT205-53	RT275-53	RT375-53
Dia. of Opening	in	17-1/2"	20-1/2"	20-1/2"	27-1/2"	37-1/2"
Table axis center to inner row sprocket teeth	in	44"	44"	53-1/4"	53-1/4"	53-1/4"
Static load rating	ton	250	350	350	500	650
Max working torque	lbf-ft	10132	16646	16635	20265	23883
Max speed	rpm	350	300	300	300	300
Gear ratio		3.75	3.79	3.79	3.67	3.56
Dimensions LxWxH	in	78" x 54" x 22"	78" x 56" x 24"	87" x 56" x 24"	94" x 66" x 27"	97" x 71" x 28"
Weight	lb	8572	9920	11023	13460	17534

DESIGN FEATURES

- The MKP SSW-40 spinning wrench is capable of spinning drill pipe and drill collars from 3-1/2" to 9-1/2" O.D.
- Spin in and spin out various types of tubing and casing.



Specifications	
Range	3-1/2" to 9-1/2" O.D.
Air pressure	90-125 ps
Air Consumption	250CFM
RPM	0-120
Stall torque	1,100 ft-lbs
Weight (lbs)	780
Overall Dimensions	17" x 55" x 22"

DESIGN FEATURES

The MKF Series triplex mud pumps are manufactured with fully interchangeable fluid end and gear end parts to the equivalent OEM pump, designed with a fabricated steel plate frame mounted on a pony skid.

Some benefits of the MKF Series pumps include:

- Gear End: 1-piece alloy steel crankshaft, and forged pinion, the pinion extends both sides of the pump, lubrication is from splash and internal-driven oil pump.
- Fluid End: Three 1-piece forged alloy steel modules with max pressure 5000psi, API valve pots, valve-over-valve design, quick-change buttress threaded valve and cylinder covers.
Liner assembly makes use of a replaceable wear plate for extended module life, and a pinion driven liner wash system.
Includes strainer assembly with pulsation dampener.

SPECIFICATIONS: MKF Series Triplex Mud Pumps

MODEL	MKF-500	MKF-800	MKF-1000	MKFB-1300	MKFB-1600
Max. Liner Size x Stroke	6-3/4" x 7-1/2"	6-3/4" x 9"	6-3/4" x 10"	7-1/2" x 12"	7-1/2" x 12"
Power Rating	500 HP @ 165 SPM	800 HP @ 150 SPM	1000 HP @ 140 SPM	1300 HP @ 120 SPM	1600 HP @ 120 SPM
Gear, Herringbone, Ratio	4.286:1	4.185:1	4.207:1	4.206 : 1	4.206 : 1
Lubrication	Pressure And Splash To All Moving Parts				
Suction Inlet	8"	10"	12"	12"	12"
Discharge Outlet	4" – 5,000 PSI	5" – 5,000 PSI	5" – 5,000 PSI	5" – 5000 PSI	5" – 5000 PSI
Pinion Shaft Diameter	5-1/2"	7"	7-3/4"	8-1/2"	8-1/2"
Keyway	1-1/4" x 5/8"	1-3/4" x 7/8"	2" x 1"	2" x 1"	2" x 2"
Valve Pot	API #5	API #6	API #6	API #7	API #7
Weight	21,540 LB	31,970 LB	41,420 LB	54,170 LB	54,660 LB

MKF SERIES TRIPLEX MUD PUMPS

PERFORMANCE: MKF-500 Triplex Mud Pump (6-3/4" x 7-1/2")

Strokes Per Minute	Power Rating (HP)	Liner Size (in) & Pressure Rating (psi)							
		6-3/4"	6-1/2"	6-1/4"	6"	5-1/2"	5"	4-1/2"	4"
		1341	1447	1565	1699	2024	2440	3025	3818
Displacement (gallons per minute)									
175	530	610	565	523	481	404	335	271	214
170	515	592	594	508	468	393	325	263	208
165	500	575	533	493	454	381	316	255	202
150	454	522	485	448	413	347	287	232	184
140	424	488	452	419	385	323	268	216	171
130	393	452	420	389	358	301	249	201	159
120	363	418	388	359	330	277	230	186	147
110	333	383	355	329	303	254	210	170	135
Displacement (GPR)		3.48	3.23	2.99	2.75	2.31	1.91	1.55	1.22

PERFORMANCE: MKF-800 Triplex Mud Pump (6-3/4" x 9")

Strokes Per Minute	Power Rating (HP)	Liner Size (in) & Pressure Rating (psi)								
		6-3/4"	6-1/2"	6-1/4"	6"	5-3/4"	5-1/2"	5-1/4"	5"	4"
		1968	2120	2295	2490	2715	2965	3260	3590	5000
Displacement (gallons per minute)										
160	853	669	620	574	529	486	444	404	367	235
150	800	627	582	538	496	455	416	379	344	221
140	747	585	543	502	463	425	389	354	321	206
130	693	543	504	466	429	395	361	328	298	191
120	640	502	466	431	397	364	333	303	275	176
110	587	459	427	394	363	334	305	278	252	162
80	427	335	310	287	264	243	222	202	183	118
Displacement (GPR)		4.18	3.88	3.59	3.30	3.04	2.78	2.53	2.29	1.47

PERFORMANCE: MKF-1000 Triplex Mud Pump (6-3/4" x 10")

Strokes Per Minute	Power Rating (HP)	Liner Size (in) & Pressure Rating (psi)								
		6-3/4"	6-1/2"	6-1/4"	6"	5-3/4"	5-1/2"	5-1/4"	5"	4-1/2"
		2370	2558	2770	3010	3270	3575	3920	4330	5340
Displacement (gallons per minute)										
150	1071	697	647	598	550	506	463	422	382	310
140	1000	651	603	558	514	472	432	394	357	289
130	929	604	560	518	477	438	402	365	331	268
120	857	558	517	478	440	404	371	337	306	248
110	786	511	474	438	404	371	339	309	280	227
80	571	372	345	318	293	269	247	224	204	165
60	429	279	258	238	220	202	185	168	153	124
Displacement (GPR)		4.65	4.31	3.98	3.67	3.37	3.09	2.81	2.55	2.07

PERFORMANCE: MKFB-1300 & MKFB-1600 Triplex Mud Pump (7" x 12")

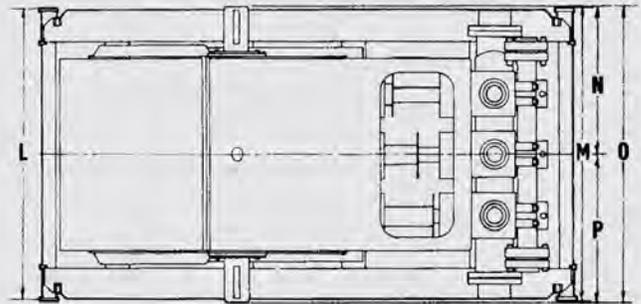
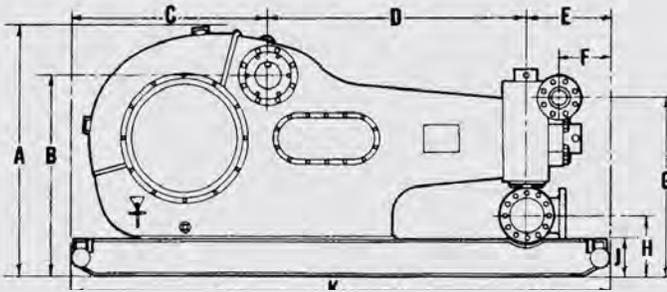
Strokes Per Minute	Liner Size (in)		7"	6-3/4"	6-1/2"	6"	5-1/2"	5"
	Pressure Rating (psi)	MKFB-1300	2789	2997	3234	3892	4516	5000
		MKFB-1600	3423	3688	3981	4665	5000	5000
	Power Rating (HP)		Displacement (gallons per minute)					
MKFB-1300	MKFB-1600							
130	1408	1733	778	724	671	573	481	398
120	1300	1600	719	669	620	529	444	367
110	1192	1467	659	613	568	485	407	337
100	1083	1333	599	557	517	441	370	306
90	975	1200	539	501	465	397	333	275
80	866	1067	479	445	413	353	296	244
70	758	933	419	389	362	309	258	214
60	650	800	359	334	310	264	222	183
Displacement (GPR)			5.99	5.57	5.16	4.41	3.70	3.06

DIMENSIONS: MKF SERIES

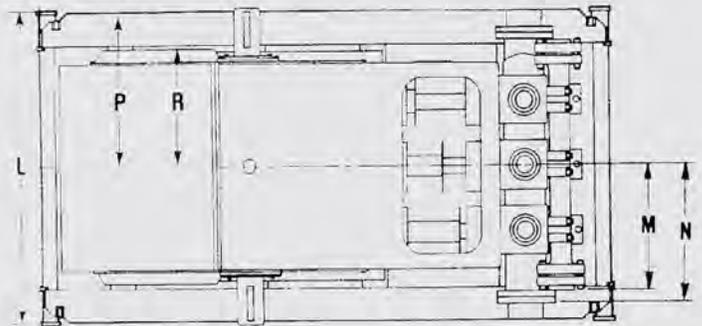
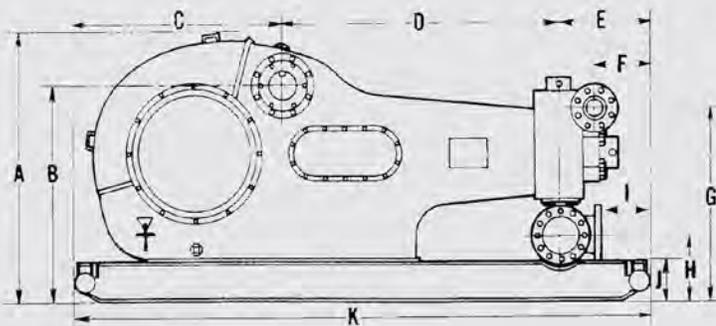
(inches)	MKF-500	MKF-800	MKF-1000
A	60.75	65.25	71.00
B	47.00	-	57.25
C	51.37	54.00	61.25
D	65.75	64.50	73.50
E	36.75	37.50	25.25
F	26.87	26.75	14.50
G	44.50	47.12	240.5
H	15.31	15.62	18.75
J	240.0	-	12.00
K	144.0	156.0	168.0
L	57.00	61.75	94.00
M	55.25	-	108.0
N	-	34.18	46.00
O	75.06	84.25	90.50
P	-	34.81	44.50

(inches)	MKFB-1300 MKFB-1600
A	82.00
B	65.75
C	73.37
D	88.37
E	30.25
F	17.68
G	59.75
H	21.75
I	13.75
J	12.00
K	192.0
L	96.00
M	38.56
N	42.37
P	47.50
R	36.25

MKF-500, MKF-800, MKF-1000



MKFB-1300, MKFB-1600



DESIGN FEATURES

Power Frame:

- Eccentric Direct Drive
- External Lubricating Oil Pump and Filter
- Left/right Shaft Extensions
- Clamp-type rod configuration

Fluid End:

- Forged steel modular blocks (MKP-165D)
- Cast Steel monoblock (MKP-165F)
- Removable Stuffing Box with Threaded Gland Nuts
- Adjustable or non-adjustable type packing
- Hardened Abrasive-Resistant valves
- 6" fabricated suction manifold
- Colmonoy plungers or piston/liner configuration
- Piston/Liner Construction

Optional Accessories:

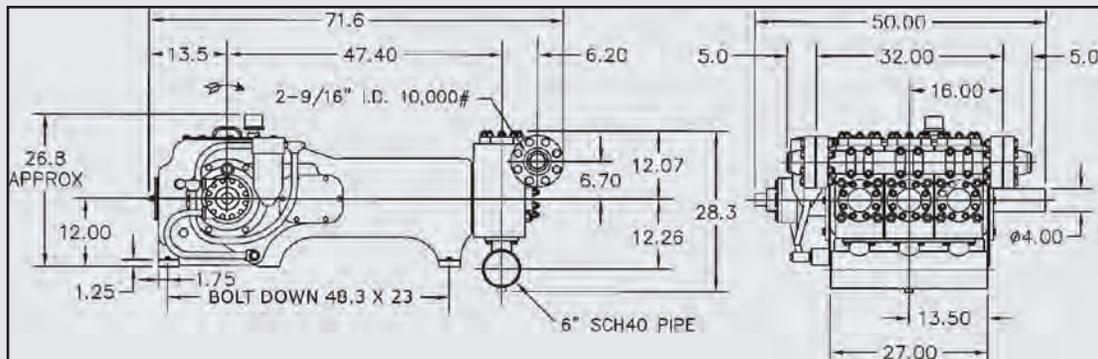
- Mechanical Packing Lubricator
- Fabricated Steel Skid with Motor or Engine
- Piston Liner Wash System
- Relief Valve
- Ceramic Plunger and Stainless Steel Valves
- Hi-Temp Packing configurations



SPECIFICATIONS: MKP-165 Triplex Pump		
Input Power	165 HP	127 kW
Maximum Speed	300 RPM	
Stroke	5 inch	127 mm
Max Operation Pressure	10,000 psi	68.9 MPa
Max. Rod Dia.	4 inch	
Weight	3300 lbs	1500 kg

PERFORMANCE: MKP-165 Triplex Pump											
Rod Dia.*	GPR	Displacement per RPM									
		50		100		200		250		300	
Inch	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	
4"	0.817	41	3500	82	2950	163	1475	204	1175	245	975
3-1/2"	0.623	31	4600	62	3800	125	1925	156	1550	187	1300
3"	0.460	23	6200	46	5250	92	2625	115	2100	138	1700
2-3/4"	0.387	19	7400	39	6150	77	3125	97	2500	116	2075
2-1/2"	0.319	16	9000	32	7550	64	3775	80	3025	96	2525
2-1/4"	0.258	13	10000	26	9300	52	4650	65	3725	77	3100
2"	0.204	10	10000	20	10000	41	5900	51	4725	61	3925
1-3/4"	0.156	8	10000	16	10000	31	7700	39	6175	47	5125

*Piston/liner construction only available for 2.75 to 4 inch rod sizes and is limited to 5000PSI discharge pressure.



MKP-275/310 TRIPLEX MUD PUMP

DESIGN FEATURES

The MKP-275/310 single acting triplex mud pump is designed for a broad range of applications for fluid services with easy maintenance and is assembled into a rigid steel fabricated frame mounted on a pony skid. The pump is fully interchangeable with the equivalent OEM.

MODEL	MKP-275/310
Max. Liner Size x Stroke	5" x 8"
Max. Power	275 HP Continuous Service 310 HP Intermittent Service
Max. RPM	175 RPM
Gear Ratio	4.7:1
Valve Pot	API #4
Weight	8600 LB

Performance: MKP-275 Triplex Mud Pump (5" x 8") Continuous Service; MAX 275 HP

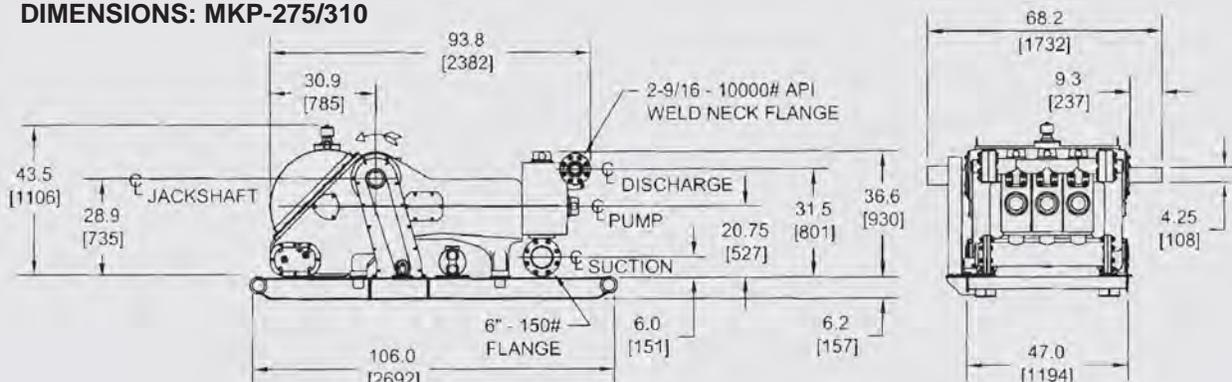
Cylinder		Displacement		Max. Pressure (psi)	Rod Load (lb)	Pump RPM	Jack Shaft RPM	Input Horsepower (hp)
Liner Size (in)	Stroke (in)	Per Revolution (gal)	Per Minute (gal)					
5"	8"	2.04	357	1122	22030	175	823	275
4-1/2"		1.65	289	1386				
4"		1.31	228	1753				
3-1/2"		1.00	175	2290				
3-1/4"		.862	151	2657				
3"		.734	128	3118				

Performance: MKP-310 Triplex Mud Pump (5" x 8") Intermittent Service; MAX 310 HP

Pump RPM	Jackshaft RPM	Plunger or Piston Size (in)				Piston Size (in)	
		4-1/2"		4"		GPM	PSI
175	825	290	1550	228	2000	357	1265
150	705	248	1820	195	2300	306	1475
125	587	207	2180	163	2750	255	1770
100	470	165	2730	130	3470	204	2215
75	352	124	3640	97	4650	153	2950
50	235	83	*5400	65	*6950	102	4430
34	160	56	*8000	44	*10000	69	5000

*Note: Piston/Liner construction limited to 5000 PSI max pressure.

DIMENSIONS: MKP-275/310



MKP-550 SERIES TRIPLEX MUD PUMP

DESIGN FEATURES

The MKP-550 series triplex mud pumps are fully interchangeable with the equivalent OEM. Pump features a rigid steel fabricated frame with a casted suction manifold with a single front inlet or fabricated two-sided inlet. Discharge connection may be made from either side of the pump. Includes strainer block with pulsation dampener, mounted on a pony skid.

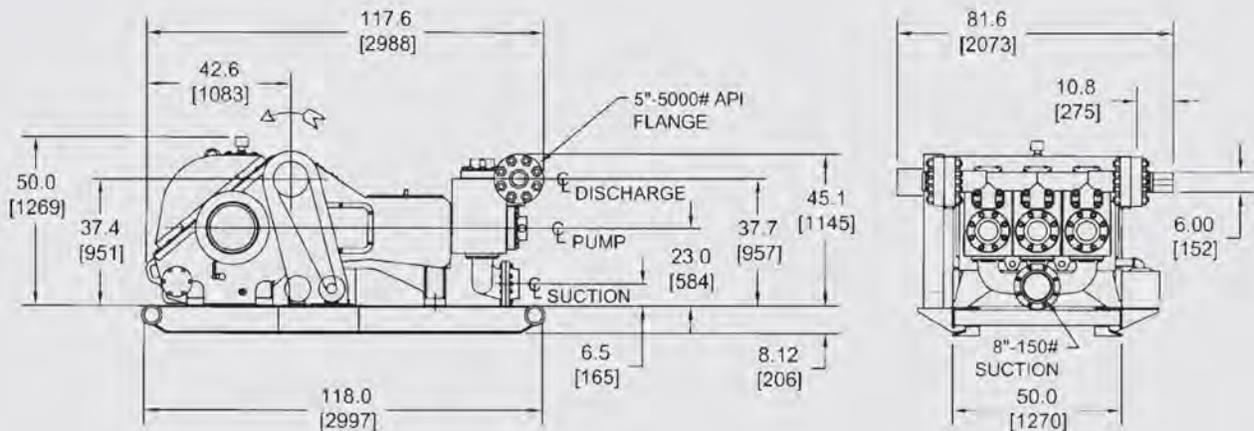
SPECIFICATIONS: MKP-550 Triplex Mud Pump

MODEL	MKP-550
Max. Liner Size x Stroke	7" x 7"
Power Rating	550 HP
Max. RPM	145 RPM
Gear Ratio	4.625:1
Valve Pot	API #7
Weight	18,000 LB

PERFORMANCE: MKP-550 TRIPLEX MUD PUMP (7" X 7")

Cylinder		Displacement		Max. Pressure (psi)	Piston Load (lb)	Pump RPM	Jack Shaft RPM	Input Horsepower (hp)
Liner Size (in)	Stroke (in)	Per Revolution (gal)	Per Minute (gal)					
7"	9"	3.50	577	1673	64,400	145	763	550
6-1/2"		3.02	498	1940				
6"		2.57	424	2277				
5-1/2"		2.16	356	2710				
5"		1.79	295	3279				
4-1/2"		1.45	238	4048				
4"		1.14	166	5000				

DIMENSIONS: MKP-550



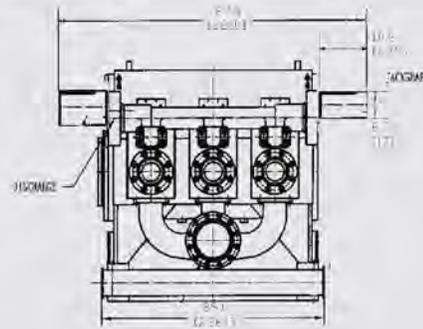
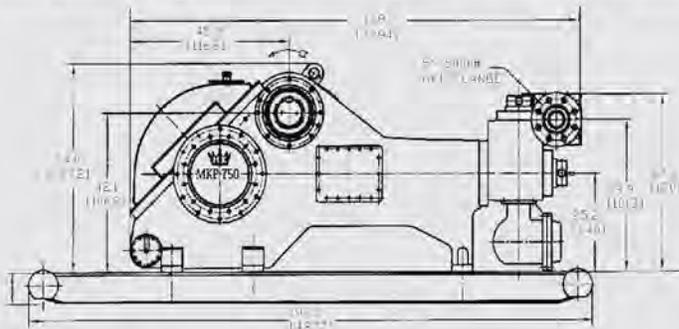
MKP-750 TRIPLEX MUD PUMP
DESIGN FEATURES

The MKP-750 triplex mud pump features a double extended jackshaft carried on heavy duty straight roller bearings and dual roller bearing connecting rods. The main gears bolted to the eccentric are heat treated along with the interchangeable fluid cylinders. The replaceable crosshead slides are bronze and the valve covers are threaded. The MKP-750 includes a complete piston washing system; and a full splash lubrication system with an oil pump, pressure gauge, and replaceable-type oil filter. External electric powered lube pump is optional equipment for secondary lubrication system.

MODEL	MKP-750
Maximum Liner	7"
Maximum Stroke	8"
Power Rating	750HP
Maximum RPM	145 RPM
Gear Ratio	4.5:1
Valve Pot	API #7
Weight	19,500 LB



Cylinder		Displacement		Maximum Pressure (psi)	Piston Load (lb.)	Pump RPM	Jack Shaft RPM	Power Input (hp)
Liner Size (in)	Stroke (in)	Per Revolution (gal)	Per Minute (gal)					
7	8	4	580	1,996	76,800	145	652	750
6-1/2		3.45	500	2,315				
6-1/4		3.19	462	2,504				
6		2.94	426	2,717				
5-1/2		2.47	358	3,233				
5		2.04	296	3,912				
4-1/2		1.65	240	4,830				
4		1.31	189	5,000				



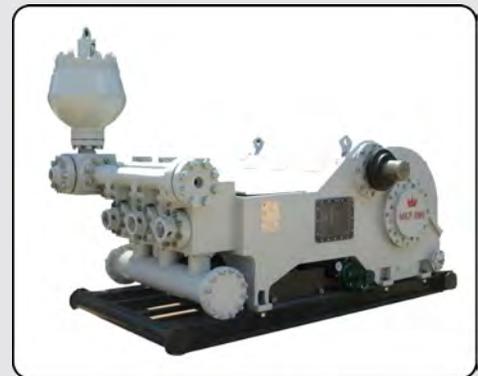
MKP-1000 TRIPLEX MUD PUMP

DESIGN FEATURES

The MKP-1000 series triplex mud pumps are fully interchangeable with the equivalent OEM. Pump features a rigid steel fabricated frame with a casted suction manifold with a single front inlet or fabricated two-sided inlet. Discharge connection may be made from either side of the pump. Includes strainer block with pulsation dampener, mounted on a pony skid.

SPECIFICATIONS: MKP-1000 Triplex Mud Pump

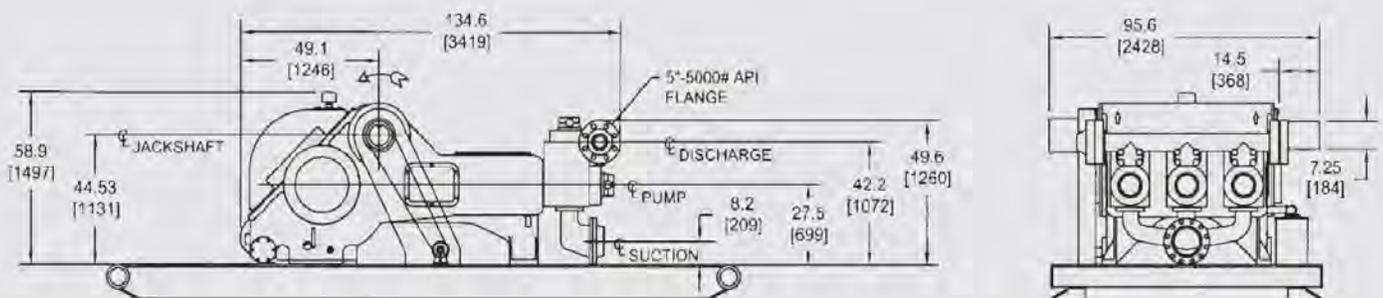
MODEL	MKP - 1000
Max. Liner Size x Stroke	7" x 9"
Power Rating	1000 HP
Max. RPM	150 RPM
Gear Ratio	4.48:1
Valve Pot	API 7
Weight	24,800 LB



PERFORMANCE: MKP-1000 TRIPLEX MUD PUMP (7" X 9")

Cylinder		Displacement		Max. Pressure (psi)	Piston Load (lb)	Pump RPM	Jack Shaft RPM	Input Horsepower (hp)
Liner Size (in)	Stroke (in)	Per Revolution (gal)	Per Minute (gal)					
7"	9"	4.50	585	2639	101550	130	582	1000
6-1/2"		3.88	504	3060				
6-1/4"		3.59	466	3310				
6"		3.30	430	3592				
5-1/2"		2.78	361	4274				
5"		2.29	298	5000				
4-1/2"		1.86	242	5000				
4"		1.47	191	5000				

DIMENSIONS: MKP-1000



MKP-1600 TRIPLEX MUD PUMP

DESIGN FEATURES

The MKP-1600 triplex mud pump features a double extended jackshaft carried on heavy duty straight roller bearings and dual roller bearing connecting rods. The main gears bolted to the eccentric are heat treated along with the interchangeable fluid cylinders. The replaceable crosshead slides are bronze and the valve covers are threaded. The MKP-1600 includes a complete piston washing system; and a full splash lubrication system with an oil pump, pressure gauge, and replaceable-type oil filter. External electric powered lube pump is optional equipment for secondary lubrication system.

MODEL	MKP-1600
Maximum Liner	7"
Maximum Stroke	11"
Power Rating	1600 HP
Maximum RPM	130 RPM
Gear Ratio	4.38:1
Valve Pot	API #7
Weight	40,500 LB



Cylinder		Displacement		Maximum Pressure (psi)	Piston Load (lb.)	Pump RPM	Jack Shaft RPM	Power Input (hp)
Liner Size (in)	Stroke (in)	Per Revolution (gal)	Per Minute (gal)					
7	11	5.50	632	3905	150,275	115	504	1600
6-1/2		4.74	545	4529				
6		4.04	465	5000	141,372			
5-1/2		3.40	390	118,791				

