

# FLOWLINE EQUIPMENTS GATE VALVES

## DRILLING FLUID CONTROL FOR MUD SYSTEM

### MUD GATE VALVE

- DEMCO DM style
- OTECO 72 style
- Z23Y / Z43Y style

### SLAB GATE VALVE

- CAMERON FC/FL style

### PLUG VALVE

- FMC/WECO UTL style

### BUTTERFLY VALVE

- DEMCO NE-C style
- DEMCO NE-D style
- DEMCO NE-I style

### FLOAT VALVE

- BAKER Model F & G style

### SHEAR RELIEF VALVE

- DEMCO style

### MUD PRESSURE GAUGE

- OTECO/CAMERON style



### DEMCO DM STYLE MUD GATE VALVE

Mud Gate Valve is equivalent to DEMCO model DM series, which is mainly used for

mud, cement, fracturing and water service and are easy to operate and simple to maintain. This series of mud gate valve is rising stem, solid gate with resilient seals with superior design and precision workmanship to meet the working request. DM mud gate valves are identically to DEMCO DM series in size and fully interchangeable spare parts can be provided.

### Specifications:

- Designed specifically for abrasive and erosive condition
- Gates available: Nickel-plated carbon steel, Monel, Aluminium Bronze or Stainless Steel
- Stainless or Carbon Steel Inserts with Nitrile or HNBR Elastomer
- Connection: Flange/Thread/Butt weld/Hammer Union
- Pressure ratings up to 5,000 psi in 2", 3", 4", 5" x 4" and 6" x 4" Valve Sizes
- Working Temperature: -46°C ~ +121°C
- Sour Service Models to NACE MR-01-75
- Specification Level: PSL1 ~ PSL3
- Performance Requirement: PR1 ~ PR2
- Factory Pressure Tested in Accordance with API.6A

### Application:

Mud pump line, standpipe manifolds, oil and gas pipelines, abrasive drilling mud system, corrosive water flood lines, cementing services, wellheads, well treating chemicals.

### 2" Full Port 2000psi, 3000psi & 5000 psi WP

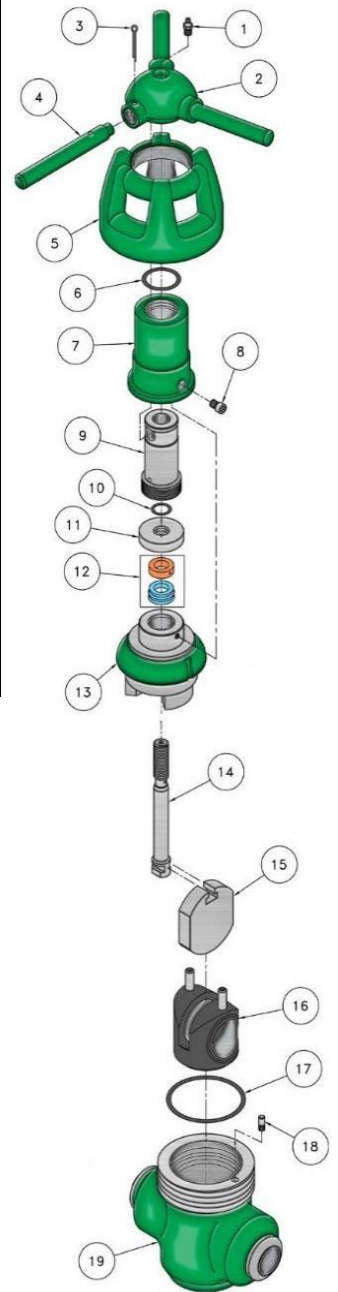


CONNECTION TYPE	DIMENSION	2" FULL PORT		
		2000 WP	3000 WP	5000 WP
Full Port Threaded	Height-397mm Width-229mm	BTJ001026	BTJ001027/M2027	BTJ001028/M2028
Weld		BTJ001029	BTJ001030/M2030	BTJ001031/M2031
Grooved		BTJ011920	-	-
Flanged (RTJ)	Height-397mm Width-295mm	BTJ001023	BTJ001024/M2024	BTJ001025/M2025
Flange O.D.	/	165mm	216mm	216mm
Flange Bolts-Size	/	8 – 5/8"	8 – 7/8"	8 – 7/8"
Ring Number RTJ	/	R-23	R-24	R-24

**PARTS LIST REFERENCE**

NO.	DESCRIPTION	MATERIAL	Cameron PART NO.
1	Lube Fitting	Steel	BTJ005195
2	Handle	ASTM A536 Ductile Iron	2139712-01
3	Pin, Lock Handle	Steel	BTJ005420-18728
4	Lock handle	C-1213	BTJ001891
5	Coupling	A216 /A487Steel	BTJ001446-020/030
6	Stem Screw Seal	Buna-N	BTJ005526-224
7	Screw Housing	C-1018	BTJ001848

8	Lock Screw	Steel	BTJ005665-22004
9	Stem Screw	C-1213	BTJ001913
10	Secondary Seal	Buna-N	BTJ005526-210
11	Retainer	C-1213	BTJ001940
12	Stem Seal Assembly	Buna-N/Viton	BTJ001949-001/006
13	Bonnet	ASTM A105	BTJ001237-XXX
14	Stem	303 SS/316 SS	BTJ001931-002/008
15	Gate	Steel, Nickel Plated/316ss	BTJ001887-002/008



16	Seat Assembly	Inserts: Ductile Iron/Steel/316ss Elastomers: Buna-N Viton	BTJ001876-011/012 BTJ001876-021/022 BTJ001876-081/ 082
17	Bonnet Seal	Buna-N/Viton	BTJ005526-342/ BTJ005531-342

18	Index Pin	Steel	BTJ001981
19	Body	A105 A216 A487	/
<b>NOTE</b>	Major Repair Kit BTJ025091-10221 (including Gate, Seat, Bonnet Seal, Stem Screw, Stem Screw Seal, Stem, Secondary Seal, Stem Seal Assy.)		
	Minor Repair Kit BTJ025091-00221 (including Gate, Seat, Bonnet Seal)		

### 3" Full Port 2000psi, 3000psi & 5000 psi WP



3"x5000 (2000, 3000) psi Flanged End



3"x5000 (2000, 3000) psi Threaded End

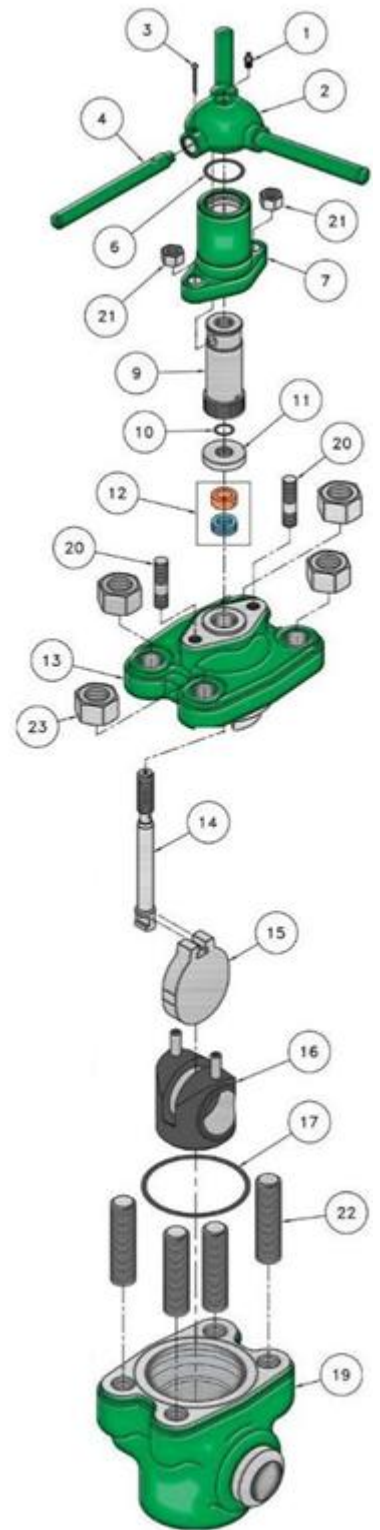


3"x5000 (2000, 3000) psi Butt Weld End

CONNECTION TYPE	DIMENSION	3" FULL PORT		
		2000 WP	3000 WP	5000 WP
Full Port Threaded	Height-557mm Width-279mm	BTJ001045	BTJ001046/M2046	BTJ001047/M2047
Weld		BTJ001054	BTJ001055/M2055	BTJ001056/M2056
Grooved		BTJ011922	-	-
Flanged (RTJ)	Height-557mm Width-397mm	BTJ001036	BTJ001037/M2037	BTJ001038/M2038
Flange O.D.		210mm	241mm	267mm
Flange Bolts-Size		8 – 3/4"	8 – 7/8"	8 – 1 1/8"
Ring Number RTJ		R-31	R-31	R-35

<b>NO.</b>	<b>DESCRIPTION</b>	<b>MATERIAL</b>	<b>PART NO.</b>
1	Lube Fitting	Steel	BTJ005195
2	Hub Assembly	ASTM A536 Ductile Iron	2139713-01
3	Pin, Lock Handle	Steel	BTJ005420-18732
4	Lock handle	C-1213	BTJ001892
6	Stem Screw Seal	Buna-N	BTJ005526-226
7	Screw Housing	C-1018	BTJ001852
9	Stem Screw	C-1213	BTJ001914-003
10	Secondary Seal	Buna-N	BTJ005526-212
11	Retainer	C-1213	BTJ001941
12	Stem Seal Assembly	Buna-N/Viton	BTJ001950-001/006
13	Bonnet	ASTM A105	BTJ001971-XXX/ BTJ001976
14	Stem	303 SS/316 SS	BTJ001932-002/ 008
15	Gate	Steel, Nickel Plated/316ss	BTJ001886-002/ 008

16	Seat Assembly	Inserts: Ductile Iron or Steel or 316 SS Elastomers: Buna-N Viton	BTJ001878-011/ 012 BTJ001878-021/ 022 BTJ001878-081/ 082
17	Bonnet Seal	Buna-N/Viton	BTJ005526-431/ BTJ005531-431
19	Body	A487	-
20	Bonnet Stud	ASTM A193	BTJ002066
21	Bonnet Stud Nut	ASTM A194	2709000-08-01
22	Body Stud	ASTM A193	BTJ002072/BTJ002074
23	Body Stud Nut	ASTM A194	2709000-0901/ 2709000-1001
<b>NOTE</b>	Major Repair Kit BTJ025091-10321 (including Gate, Seat, Bonnet Seal, Stem Screw, Stem Screw Seal, Stem, Secondary Seal, Stem Seal Assy.) Minor Repair Kit BTJ025091-00321 (including Gate, Seat, Bonnet Seal)		



**4" Full Port 2000psi, 3000psi WP**



4"×3000psi (2000psi) Flanged End  
(2000psi) Butt Weld End



4"×3000psi (2000psi) Threaded End



4"×3000psi

**4" Full Port 5000 psi WP**



4"×5000psi Flanged End



4"×5000psi Threaded End



4"×5000psi Butt Weld End

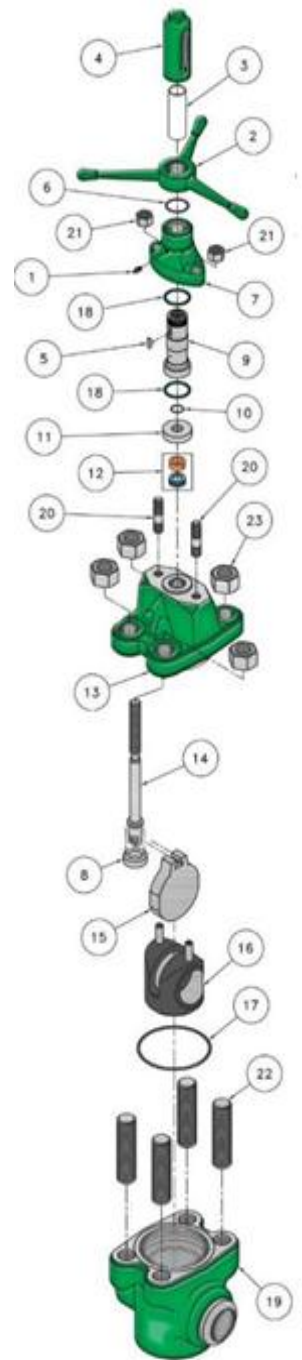
CONNECTION TYPE	DIMENSION	4" FULL PORT		DIMENSION	4" FULL PORT
		2000 WP	3000 WP		5000 WP
Full Port Threaded	Height-656mm	BTJ001048	BTJ001049/M2049	Height-740mm	BTJ007420/M8420
Weld	Width-330mm	BTJ001057	BTJ001058/M2058	Width-330mm	BTJ007421



Flanged (RTJ)	Height-656mm  Width-416mm	BTJ001039	BTJ001040/M2040	Height-740mm  Width-457mm	M27263
Flange O.D.		274mm	292mm		311mm
Flange Bolts-Size		8 – 7/8"	8 – 1 1/8"		8 – 1 1/4"
Ring Number RTJ		R-37	R-37		R-39

NO.	DESCRIPTION	MATERIAL	PART NO.	
			2000/3000 WP	5000 WP
1	Lube Fitting	Steel	BTJ005195	
2	Hub Assembly/ Handle	ASTM A536 Ductile Iron	2139714-01	2139481-01
3	Tube	Clear Acrylic	/	BTJ007459
4	Lock handle /Stem Cap	C-1213/ ASTM A536 Ductile Iron	BTJ001897	BTJ007411
5	Key	Steel	/	BTJ005305-1001 6
6	Stem Screw	C-1213	BTJ001915	
7	Stem Screw Seal	Buna-N	BTJ005526-227	
8	Screw Housing	C-1018	BTJ001958	
9	Stem	303 SS/316 SS	BTJ001933-002/BTJ001933-008	
10	Secondary Seal	Buna-N	BTJ005526-214	
11	Retainer	C-1213	BTJ001942	
12	Stem Seal Assembly	Buna-N	BTJ001951-001	
		Viton	BTJ001951-006	
16	Bonnet	ASTM A487	BTJ001972-XXX	
18	Bonnet Seal	Buna-N/Viton	BTJ005526-438/ BTJ005526-439 BTJ005531-438/ BTJ005531-439	
19	Gate	AISI 1045 Nickel Plated	BTJ001926-002	
		Cast SS ASTM A351 Grade CF8M	BTJ001926-008	

20	Body	A487	
21	Seat Assembly	Inserts: Ductile Iron/Steel AISI C1040/316 SS Elastomers: Buna-N Viton	BTJ002207-021/BTJ002207-022 BTJ002207-081BTJ002207-082
22	Pin, Lock Handle	Steel	BTJ005420-18732
23	Bonnet Stud	ASTM A193	BTJ002072
24	Bonnet Stud Nut	ASTM A194	2709000-09-01
25	Body Stud	ASTM A193	BTJ002074
26	Body Stud Nut	ASTM A194	2709000-10-01
<b>NOTE</b>	Major Repair Kit BTJ025091-10421/ BTJ025091-11421 (including Gate, Seat, Bonnet Seal, Stem Screw, Stem Screw Seal, Stem, Secondary Seal, Stem Seal Assy.) Minor Repair Kit BTJ025091-00421/ BTJ025091-01421 (including Gate, Seat, Bonnet Seal)		





### **OTECO MODEL 72 STYLE MUD GATE VALVE**

Mud Gate Valve is equivalent to OTECO model 72 series, easy operation, tight shut offs, long service life before overhaul. This assures simple, fast, low cost renewal in the field.



### Specifications:

- Size: 2", 3", 4", 4" x 5"
- Working Pressure: 2000psi, 3000psi, 5000psi
- Working Temperature: -46°C ~ +240°C
- Connections: LP Threaded, Butt-weld, Flanged, Union Available
- Working Medium: Sour Gas, Water Flood
- Valve body protected by oil and abrasion resistant long-life rubber seals
- Full rising, one-piece forged gate & stem, shows at a glance if valve is open, partly open or closed.

### Application:

Mud pump line, standpipe manifolds, oil and gas pipelines, abrasive drilling mud system, corrosive water flood lines, cementing services, wellheads, and well treating chemicals



LP Threaded End Connection



Butt Welded End Connection



Flanged End Connection

### PARTS LIST REFERENCE

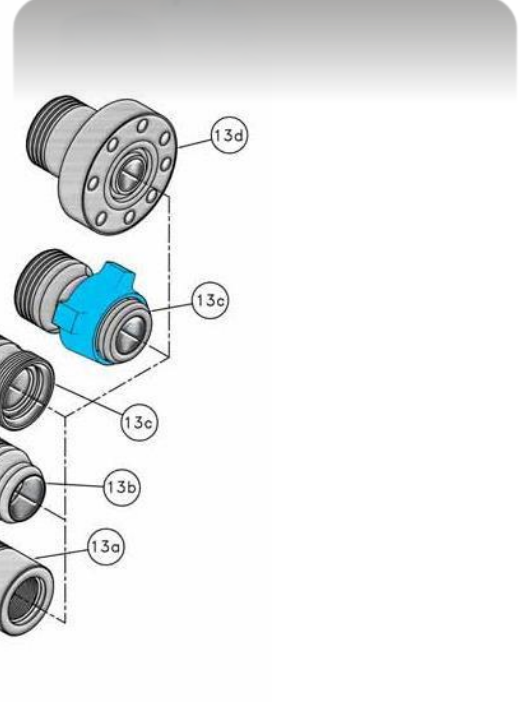
NO	DESCRIPTION	MATERIAL	2000/3000/5000 WP		
			2"	3"	4"
1	HANDWHEEL	/	M120132	M120142	M120143
2	STEM NUT	/	M120232	M120242	M120243
3	GATE	4130 Nickel Plated 316SS	M120323	M120333	M120343

4	SPLIT BONNET ASSEMBLY	Incl. item5, 6 &17	M120432	M120442	M120443
5	BONNET BOLT	2 req'd	M120532	M120542	M120543
6	BONNET NUT	2 req'd	M120623	M120623	M120643
7	STEM PACKING	BUNA-N	M120732-1	M120742-1	M120743-1
		VITON	M120732-2	M120742-2	M120743-2
8	STEM PACKING RING	1020 Cadmium Plated 316SS	M120832	M120842	M120843
9	VALVE BODY	Standard/Sour Gas	M120925	M120935	M120945
10	GATE PACKING	BUNA-N	M121023-1	M121033-1	M121043-1
		VITON	M121023-2	M121033-2	M121043-2
11	WEAR PLATE	1026 Carburized/316SS	M121123	M121133	M121143
12	O RING	BUNA-N	M121223-1	M121233-1	M121243-1
		VITON	M121223-2	M121233-2	M121243-2
13 a b c d	BODY SUB	WELD SCH.XXH	M121323-10	M121333-10	M121343-10
		WELD SCH.160	M121323-11	M121333-11	M121343-11
		SCREW LP	M121323-20	M121333-20	M121343-20
		SCREW NUE	M121323-21	M121333-21	M121343-21
		FLANGED RAISED FACE	M121323-30	M121333-30	M121343-30
		FLANGED RTJ	M121323-31	M121333-31	M121343-31
14	BODY CAP	Standard/Sour Gas	M121425	M121435	M121445
15	BODY STUD	4 req'd	M121525	M121535	M121545
16	BODY STUD NUT	4 req'd	M121625	M121635	M121645
17	GREASE FITTING	Steel, 1/8"PTF	-	-	-
18	GREASE FITTING	Steel, 1/8"PTF	-	-	-

Major repair kits include Gate Packing, Wear Plate, O-ring, Gate, Stem Packing

Minor repair kits include Gate Packing, Wear Plate, O-ring





**Z23Y STYLE METAL SEAL MUD GATE VALVE**

Z23Y / Z43Y series of mud gate valves are designed by parallel-type Metal to Metal Sealing, mainly used for Oil and Gas lines, Wellheads, Manifolds and Pipelines, Crude Oil and Sour Gas, Well Treating Chemicals. It is convenient to open, the two ends of the valve and pipes are

joined and staled with spherical movement, the movable connection of the rubber seal ring like "O" is not of high requirement about straightness of the two ends of pipes, when is fitted and its seal performance is good.



## Specification

MODEL	Z23Y-35- DN50	Z23Y-35- DN65	Z23Y-35- DN80	Z23Y-35- DN100	Z43Y-70- DN50	Z43Y-70- DN65	Z43Y-70- DN80	Z43Y-70- DN100
W.P.	5000 PSI				10000 PSI			
SIZE	50 (2 1/16")	65 (2 9/16")	80 (3 1/8")	100 (4 1/16")	50 (2 1/16")	65 (2 9/16")	80 (3 1/8")	100 (4 1/16")
MEDIUM	MUD							
CONNECTON	UNION,THREADED,BUTT WELDED				FLANGE			
CONNECTION SIZE	Tr120x6 (Tr100x12)	Tr130x6 (Tr120x12)	Tr150x6	Tr180x6	BX152	BX153	BX154	BX155
STRUCTURE LENGTH	230	235	270	330	356	380	430	520

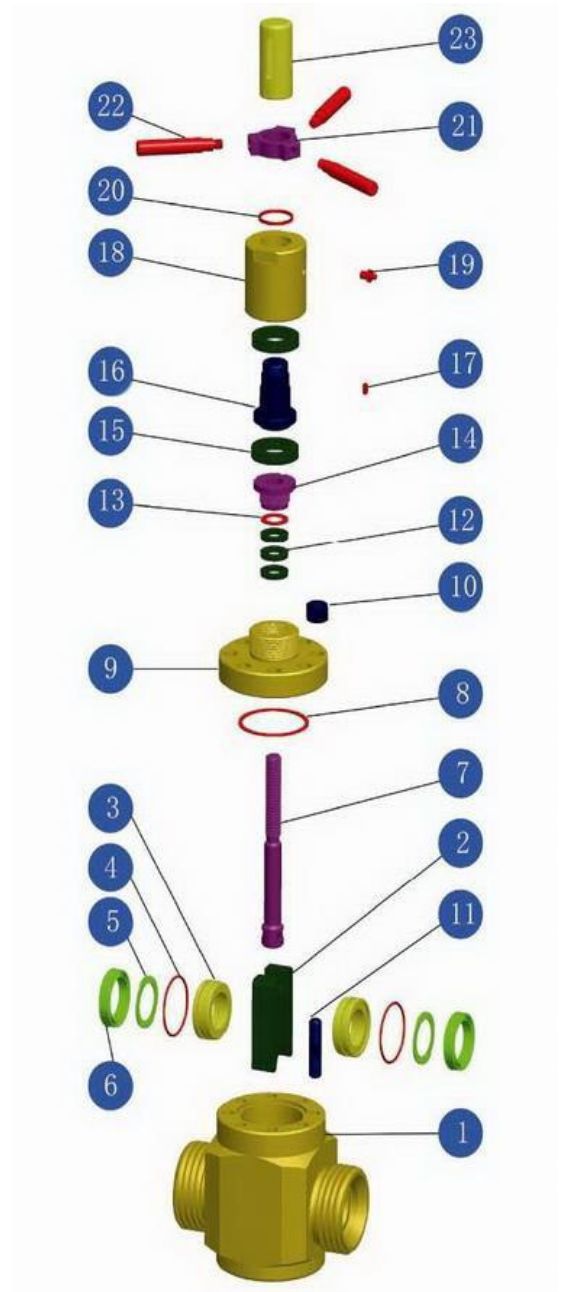
## PART LIST REFERENCE

KEY NO.	DESCRIPTION	QTY.	MATERIAL
1	BODY	1	4130
2	GATE	1	4130
3	SEAT	2	4130
4	O-RING	4	NBR
5	WAVE SPRING	2	410





6	SEALING RING	2	NBR
7	STEM	1	410
8	BONNET SEAL RING	1	1010
9	BONNET	1	4130
10	BONNET NUT	8	5140
11	BONNET STUD	8	4130
12	STEM LIP PACKING	3	NBR
13	PACKING RING	1	410
14	PACKING GLAND	1	4130
15	BEARING	2	ASSY.
16	STEM NUT	1	4130
17	FLAT KEY	1	STEEL
18	BEARING CAP	1	5140
19	OIL CUP	1	ASSY.
20	O-RING	1	NBR
21	HUB ASSY.	1	STEEL
22	LOCK HANDLE	1	STEEL
23	STEM PROTECTOR	1	1035



**CAMERON FC/FL STYLE SLAB GATE VALVE**

Slab Gate Valve is equivalent to CAMARON model FC & FL series, whose feature is a non-rising stem with a slab gate, full-bore thru-conduit design, floating slab gate and seats, floating seat ring body bushing design to provide safe dependable service. This series of gate valves are made by



integral die forging, the body and flanges are integral (non-welding). Shot Blasting for every parts of valve. Phosphate to improve corrosion resistance.

### Specifications

- Manufactured and tested in accordance with API Spec 6A
- Forged Steel Body and Bonnet
- A True Bi-Directional Valve
- Low Operating Torque
- API Spec 6A PSL, 1, 2, 3
- Material Classes DD, EE, FF, to NACE MR-01-75
- Connections: Threaded, Butt-weld, Flanged, Union
- Medium available: Oil, Gas, and Water
- Specification Level: PSL1 ~ PSL4
- Performance Requirement: PR1 ~ PR2
- Size from 1 13/16" - 7 1/16"
- Working pressures: 5000-20000 PSI



### Application

Well Control System, Drilling Manifolds, X-mas trees

**Slab Gate Valve divided into Non-rising stem and rising stem type, also divided into manual and hydraulic type.**

### MANUAL SLAB GATE VALVE (NON-RISING STEM)

#### Feature

- Simple structure and renewable gate and seat assembly;
- One-piece and double-acting gate with long service life;
- Both thrust bearings with large load capacity and composite rubber-plastic stem lip packing minimize operational torque;
- Bearing cap is provided with a grease cup to make it easy to inject lubricating grease in



- the field;
- Threaded packing gland allows removal of bearings and stem packing under line pressure;
  - Both the bolted bonnet and modern bonnet seal ring provide simple structure and reliable sealing;
  - The sealing surfaces of the gate and seat are hard faced for wear and corrosion resistance;
  - Wave springs are installed between the body and seat and between the gate and seat. The gate and seat still maintain a positive metal to metal seal under low pressure;
  - Floating gate design requests the hand wheel to be backed off 1/4 turn after its rotation can go no further.

### **MANUAL SLAB GATE VALVE (RISING STEM)**

Rising stem slab gate valves have the same characters as non-rising stem slab gate valves.

For rising stem, the close and open of the valves is completely controlled.

### **HYDRAULIC SLAB GATE VALVE**

Hydraulic slab gate valves adapt hydraulic control, used extensively in the automatic control system and remote control, work steadily and use freely.

#### **Specification**

Nominal pressure: 2000psi - 15000psi

Nominal size: 1-13/16" - 4-1/16"

Working temperature: P U

PR: 1-2

PSL: 1-4

MC: AA-FF

OP: 100~1500ps.



## WECO ULT STYLE PLUG VALVE LOW TORQUE

We provide API 6A standard ULT style Plug Valves with standard union connections, and a standard service rating up to 15000psi NSCWP, size from 1" to 3". ULT Plug valve provides flow control for oilfield applications such as cementing, fracturing, acidizing, coiled tubing, sand control, and manifold trailers. Manual, Air and Hydraulic operation available for standard, sour gas and low temperature application.

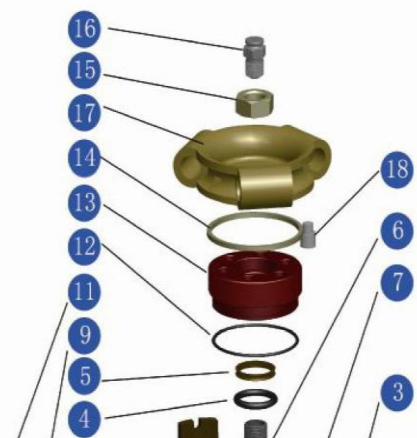


ULT Plug Valves has the features of superior seal ability, low operating torque, and longer service life, dual seal design, which consists of high alloy steel valve body, plug and rubber seals. The cylinder body inner wall and side segments work together with the rubber seal segment to provide sealing. The metal-to-metal sealing is available between the side segment and cylinder plug, and it can be easily open or closed even the working pressure



### Part List:

ITEM	NAME	QTY.(EA)	MATERIAL
1	Body	1	4130
2	Seal Ring	1	NBR
3	Side Segment	2	410



4	O-ring	1	NBR
5	Retaining	2	1010
6	Plug	1	4130
7	Seal Guide	2	410
8	Seal Bushing	2	NBR
9	Split	3	5140
10	Retainer Ring	1	1566
11	Nut	1	1045
12	O-ring	1	NBR
13	Bonnet	1	4130
14	Gasket	1	NBR
15	Lock Nut	1	5140
16	Lubrication	1	Assy.
17	Handwheel	1	WCB
18	Pin	1	1045

## Specification

Working Pressure: 42~140Mpa

Size: 1"-3"

Working Temperature: PU, PL

Working Condition: STD., H2S, low temperature

Manufacturing Standard: API 6A & NACE MR 0175

Model	Size in.	CWP, Mpa/psi	Part No.	Weco End Connection	Operation	Service
BT-ULT150-1X2	1x2	105Mpa/15000psi	BTP516108	2" FIG.1502(M x F)	Manual	Std.
BT-ULT100-1X2	1x2	70Mpa/10000psi	BTP516208	2" FIG.1502(M x F)	Manual	Sour
BT-ULT100-2X2	2	70Mpa/10000psi	BT3248705	2" FIG.1502(M x F)	Manual	Sour
BT-ULT150-2X2	2	105Mpa/15000psi	BT3247527	2" FIG.1502(M x F)	Manual	Std.
BT-ULT150-2X3	2	105Mpa/15000psi	/	3" FIG.1502(M x F)	Manual	Std.
BT-ULT200-2X2	2	140Mpa/20000psi	BT3223008	2" FIG.2002(M x F)	Manual	Std.
			BT3234183	2" FIG.2202(M x F)		Sour
BT-ULT100-3X3	3	70Mpa/10000psi	/	3" FIG.1502(M x F)	Manual	Sour
BT-ULT150-3X3	3	105Mpa/15000psi	/	3" FIG.1502(M x F)	Manual	Std.
BT-ULT150-3X3	3	105Mpa/15000psi	/	3" FIG.1502(M x F)	Handwheel	Sour
BT-ULT150-3X3	3	105Mpa/15000psi	/	3" FIG.1502(M x F)	Hydraulic	Std.
BT-ULT200-3X3	3	140Mpa/20000psi	/	3" FIG.2002(M x F)	Manual	Std.
BT-ULT200-3X3	3	140Mpa/20000psi	/	3" FIG.2002(M x F)	Hand Wheel	Std.
BT-ULT200-3X3	3	140Mpa/15000psi	/	3" FIG.2002(M x F)	Hydraulic	Std.

## DEMCO STYLE BUTTERFLY VALVE

Style butterfly valves own all the features of CAMERON DEMCO NE series, which is a most durable resilient-seated butterfly valve, an economical alternative to ball valve, gate valve, plug valve in many applications.

Cast in both wafer and tapped lug patterns in a variety of material choices, DEMCO style butterfly valves feature a one-piece body for reduced weight and increased strength; and the unique stem hole design in the disc ensures the dry stem journal, and the hard-backed seat allows ease of installation, reliable operation and in-field repair ability without special tools; Engineered for long-term, reduced-maintenance performance, steel or cast iron flanges of either raised or flat-faced type are suitable for using with BETTER butterfly valves. DEMCO butterfly valves are commonly selected for a variety of applications in the following industries:

- \* Chemical and petrochemical
- \* Agriculture
- \* Oil and gas drilling and production
- \* Food and beverage
- \* Water and waste water
- \* Cooling towers (HVAC)
- \* Power
- \* Mining and materials
- \* Dry bulk handling
- \* Marine and government





## STYLES AND ACCESSORIES

Butterfly valve comes in NE-C, NE-I, NE-D, NF-C styles to suit a range of applications. In addition, a variety of quality accessories are available to further enhance its suitability to the application.

## SPECIFICATIONS

Long-Neck NE-C 2" to 12" wafer/lug

Short-Neck NE-I and NE- Sanitary: 2" to 12" wafer/lug

NE-D: 2" to 12" wafer

NF-C: 14-36" wafer/lug

Pressure Rating 2" to 12": 0 (Throttling); 50, 200 and 285 psi

Operating Temperatures: -30° F to 300° F (-34° C to 204° C), depending on seat material selection and application

### Standard Material Options

Bodies: Iron, steel, stainless steel and bronze

Discs: Nickel-plated ductile iron, bronze and stainless steel

Stems: 416 and 316 stainless steel

Seats: Buna-N, EPDM, FKM and Neoprene

- Many more options available



### DEMCO NE-C STYLE LONG NECK IN 2"-12"

NE-C style wafer and lug type butterfly valves are designed to meet the requirement of chemical plants, processing plants, power plants, refineries, shipbuilding, and wherever positive shut-off is required for liquids, oil, gas. Equivalent to DEMCO NE-C 2"-12".

### Feature

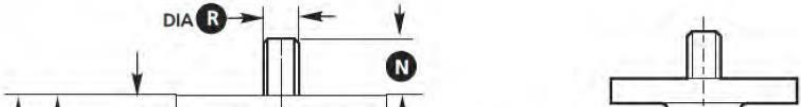
- ✚ Water and Lug design, identical with NE-Long Neck style 2"-12"
- ✚ 10 position locking handles
- ✚ One-piece body to assure high strength and minimum weight, cast in water and lug pattern, rating at ANSI Class 150 (285 psi non-shock)
- ✚ Top flange with large mounting area for automatic or manual actuators
- ✚ Disc & seat are configured for low pressure drop and high flow coefficients
- ✚ Three drop tight pressure ratings 285psi, 200psi, 50psi; 200psi shutoff is widely used;
- ✚ Bi-directional with identical flow-way from either face, easy installation &



disassembly, inspection, replacement of parts;

**DEMCO NE-D Style Notched Wafer Body in 2-12inch**

DEMCO NE-D style Butterfly Valves are excel design in a variety of applications, Short neck with body notched to fit light weight flanges and for working area of limited space. They are ideal for mining, dry bulk material handling, etc.





# Dimension Reference

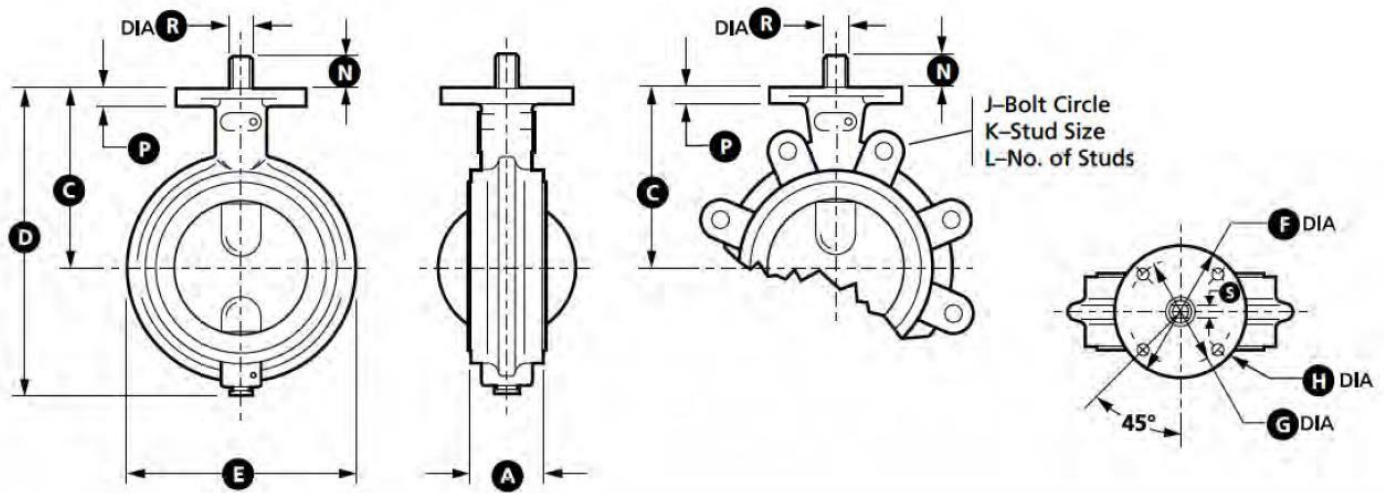
Size in.	A	C	D	E	F	G	H	J	K	L	N	P	R	S
2	1.74	3.94	6.75	4.12	4.00	3.25	0.408	4.27	3/8	4	1.00	0.44	0.625	0.375
	1.86	4.44	7.50	4.88	4.00	3.25	0.408	5.31	3/8	4	1.00	0.44	0.625	0.375
3	1.86	4.88	8.19	5.38	4.00	3.25	0.408	4.91	3/8	6	1.00	0.44	0.625	0.375
4	2.11	6.00	9.88	6.88	4.00	3.25	0.408	7.03	1/2	6	1.00	0.44	0.625	0.375
5	2.24	6.00	10.38	7.75	4.00	3.25	0.408	7.56	1/2	6	1.25	0.44	0.838	0.500
6	2.24	6.50	11.50	8.75	4.00	3.25	0.408	9.16	1/2	8	1.25	0.44	0.838	0.500
8	2.54	8.06	14.19	11.00	6.00	5.00	0.533	11.72	5/8	8	1.38	0.56	0.838	0.500
10	2.74	9.97	17.41	13.38	6.00	5.00	0.533	13.72	5/8	8	1.38	0.56	0.963	0.625
12	3.24	10.91	20.41	16.12	6.00	5.00	0.533	16.62	1/2	12	1.38	0.56	1.338	0.750

## DEMCO NE-I Style Short Neck in 2-12inch

DEMCO NE-I style Butterfly Valves are also short neck for a wide variety of body materials, which is designed for installation between ASME Class 125/150 flanges. NE-I with extension stem is also available, and extension stem length can be customized.



## Dimension Reference



Size in.	A	C	D	E	F	G	H	J	K	L	N	P	R	S
2	1.74	3.94	6.75	4.12	4.00	3.25	0.408	4.75	5/8 - 11	4	1.00	0.44	0.625	0.375
2-1/2	1.86	4.44	7.50	4.88	4.00	3.25	0.408	5.50	5/8 - 11	4	1.00	0.44	0.625	0.375
3	1.86	4.69	8.00	5.38	4.00	3.25	0.408	6.00	5/8 - 11	4	1.00	0.44	0.625	0.375
4	2.11	5.44	9.31	6.88	4.00	3.25	0.408	7.50	5/8 - 11	8	1.00	0.44	0.625	0.375
5*	2.24	6.38	10.75	7.75	4.00	3.25	0.408	8.50	3/4 - 10	8	1.25	0.44	0.838	0.500
6	2.24	6.88	11.88	8.75	4.00	3.25	0.408	9.50	3/4 - 10	8	1.25	0.44	0.838	0.500
8	2.54	8.06	14.19	11.00	6.00	5.00	0.533	11.75	3/4 - 10	8	1.38	0.56	0.838	0.500
10	2.74	9.97	17.41	13.38	6.00	5.00	0.533	14.25	7/8 - 9	12	1.38	0.56	0.963	0.625
12	3.24	10.91	20.41	16.12	6.00	5.00	0.533	17.00	7/8 - 9	12	1.38	0.56	1.338	0.750

## Base Part Number for Reference

Series NE-C, 2"-12" Wafer and Lug In.(mm)									
Description	2	2-1/2	3	4	5	6	8	10	12
200psi	BT22119	BT22120	BT22121	BT22122	BT22123	BT22124	BT22125	BT22126	BT22127
285psi	BT22225	BT22226	BT22227	BT22228	BT22229	BT22230	BT22231	BT22232	BT22233
50psi	BT22234	BT22235	BT22236	BT22237	BT22238	BT22239	BT22240	BT22241	BT22242
Series NE-I, 2"-12" Wafer and Lug In.(mm)									
Description	2	2-1/2	3	4	5	6	8	10	12
200psi	BT22128	BT22129	BT22130	BT22131	BT22132	BT22133	BT22134	BT22135	BT22136
285psi	BT22252	BT22253	BT22254	BT22255	BT22256	BT22257	BT22258	BT22259	BT22260
50psi	BT22261	BT22262	BT22263	BT22264	BT22265	BT22266	BT22267	BT22268	BT22269
Series NE-D, 2"-12" Wafer In.(mm)									
Description	2	2-1/2	3	4	5	6	8	10	12
200psi	BT22181	BT22129	BT25093	BT22183	BT22184	BT22185	BT22134	BT22186	BT22136
285psi	BT22279	BT22253	BT25135	BT22281	BT22282	BT22283	BT22258	BT22284	BT22260
50psi	BT22285	BT22262	BT25132	BT22287	BT22288	BT22289	BT22267	BT22290	BT22269
Series NF-C, 14"-36" Wafer and Lug In.(mm)									
Description	14	16	18	20	24	30	36	/	/
150psi	BT23820	BT23821	BT23822	BT23823	BT23824	BT24141	BT24357	/	/
50psi	BT24440	BT24441	BT24442	BT24443	BT24444	BT24924	BT25061	/	/

## BAKER Model F & G style Float Valve

We provide Float Valves, Repair Kits, Baffle Plates and Puller Assembly Tools, including H2S and high temperature service condition. These Drill Pipe Float Valve provides added blowout protection at the bottom of the drillstring, prevent flowback when joints are added, and keep cuttings out of drill pipes to prevent bit plugging while making connections.

### Feature

- ✚ All BETTER Float Valves are manufactured with alloy steel integral
- ✚ All Flappers are investment cast and then case hardened for wear resistance.
- ✚ Elastomers available Buna-N/NBR (Standard), Viton/FKM (Hi-Temp), HNBR (H2S) for optional.
- ✚ All Float Valves, baffle plates, and valve pullers are interchangeable with the Baker® Style Model F/FA, and Baker® Style Model G/GA Float Valves.
- ✚ Heat Treatment: Carburize at 1500-1550°F to .005/.010 depth with
- ✚ hardness 58 HRC Min. Surface treatment: Xylan fluoropolymer coating
- ✚ with depth 0.25-0.30mm or Nicked Plated. Standard API NRV
- ✚ Color Blue or Black, or customized

### MODEL F PLUNGER TYPE FLOAT VALVE

Model F DPFV provides positive and instantaneous shut off against high and low pressure, assuring continuous control of fluid during drilling, including H2S application. For normal drilling operations, the durable Model F is the most economical choice and is available



in all sizes.

Model F Drill Pipe Float Valve is made of alloy steel body and dimensionally identical to the standard Baker F Float Valve, interchangeable trim, recommended for use with downhole mud motors.

### **Model FA Drill Pipe Float Valve**

Model FA DPFV offers all the standard feature of Model F with the added feature of a port which allow a fluid path through the valve's center. It is recommended to use for monitoring the bit head when differential pressure required. Available in all sizes.

### **Model G Flapper Type Full Open Valve**

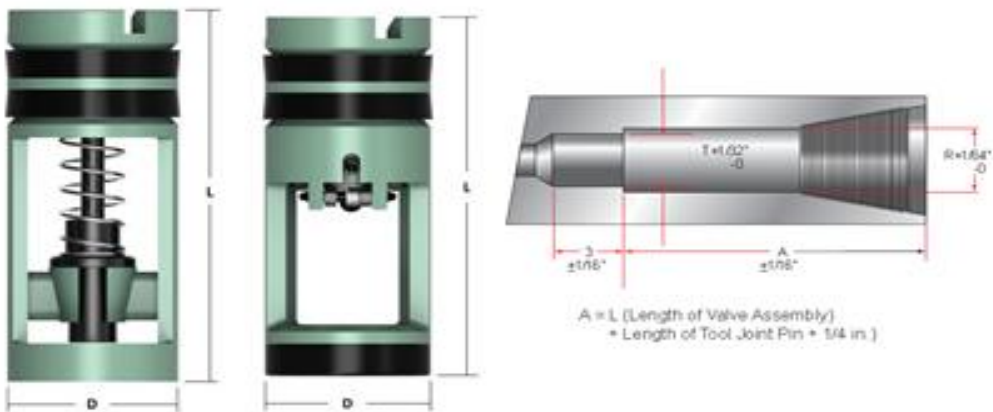
It is good for use with highly abrasive fluids, with flapper design to open quickly and fully to provide a completely unrestricted bore through the valve. When circulation stops, the flapper closes instantly to prevent cuttings from entering the drill string and plugging the bit; and open when the first joint is raised out of the hole assuring the first joints drain and are not pulled wet.

All flappers for Model G are made of low alloy steel 8620 with QPQ treatment to resist wear and erosion. The flapper valve opens fully during circulation providing an unrestricted flow for drilling fluid.

### **Model GA Differential Pressure Monitoring Valve**

It is identical to Model G except of a hardened ¼" diameter tungsten carbide orifice bean insert in the flapper to provide automatic partial filling of the drill pipe during running in, which is used to monitor the bit head when differential pressure required.

### **Dimensional Information for all styles of Model F and G Drill Pipe Float Valve**



Valve Size	D	R(D+1/32)	L	T	ID of Valve	
	Diameter of Valve	Diameter of Recess for Valve	Length of Valve	Diameter of Recess for Baffle Plate	Model F	Model G
1R	1 21/32"	1 11/16"	5 7/8"	1 5/16"	1"	N/A
1F-2R	1 29/32"	1 15/16"	6 1/4"	1 1/2"	1 1/4"	1"
2F-3R	2 13/32"	2 7/16"	6 1/2"	1 29/32"	1 9/16"	1 1/4"
3F	2 13/16"	2 27/32"	10	2 7/16"	1 7/8"	1 5/8"

3 ½ IF	3 1/8"	3 5/32"	10	2 11/16"	1 7/8"	1 5/8"
4R	3 15/32"	3 1/2"	8 5/16	2 15/16"	2 5/16"	1 31/32"
4F	3 21/32"	3 11/16"	12	3 1/4"	2 1/2"	2 3/16"
5R	3 7/8"	3 29/32"	9 3/4"	3 3/8"	2 3/4"	2 1/4"
5F-6R	4 25/32"	4 13/16"	11 3/4"	4 9/32"	3 1/4"	2 7/8"
6F	5 11/16"	5 23/32"	14 5/8"	5 3/16"	4 1/8"	N/A

Model F and G Drill Pipe Float Valve are identical in outside dimension and use the same float sub or bored-out drill collar. Float subs are made in lengths from 14" to 30" depending on size and type, and designed for two recuts, two on either end or one on each end.

### Repair Kits for all Styles of Model F

### and G DPFV

### Rubber repair kits & Metal repair kits



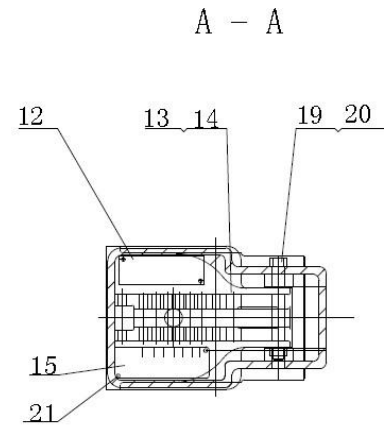
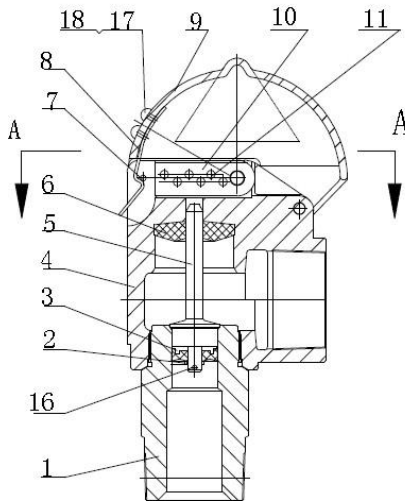
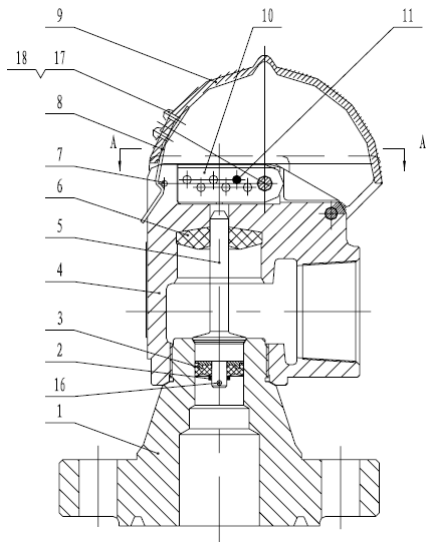




### DEMCO STYLE SHEAR RELIEF VALVE JA-3

We supply DEMCO style JA-3 Shear Relief Valve 3"-5000psi, which is popular used in BOMCO Mud Pump F1300/1600, HHF1300/1600 and 3NB1300/1600. There is Threaded and Flanged connection, union is available upon request.

### Structure



We also have YYFJ-L2 Overflow Valve, JZR3-L8 Angle Stop Valves, PJC1-L8 Air Release Valve used for Mud Pump Pulsation Dampener.

### OTECO STYLE MUD PRESSURE GAUGE

We provides those popular and good quality pressure for oilfield mud pump, standpipe and manifolds. They are equivalent to OTECO model 6, model 7 and model 8. Also interchangeable with Cameron type F, type D pressure gauge. 3 gauge models offering a multitude of sizes, pressure ranges and sub end connection, Dial range in PSI, BAR, KPA. Model 8 gauge offers dual unit of measure. They can work for trim of Salt water, Sour gas, Standard (mud, water, oil).





## Specifications

### **Type F / Model 6:**

Dimensions: 4-7/8 inch diameter dial case

Pressure range: 0-20,000 psi

Standard end connection: 2" NPT/LPT male and  
1" LPT/NPT female.

Interchangeable with: Cameron type 'F', Oteco

Model 6

Sub connection: 2" LPT female, RTJ Flanged, 2" FIG.1502 Male/Female for optional.

### **Type D / Model 7:**

Dimensions: 7-5/8 "diameter dial case

Pressure range: 0-6,000 psi (1000 psi, 3000  
psi, 5000 psi, 6000 psi) Standard end

connection: 2" NPT/LPT female

Interchangeable with: Cameron type 'D', Oteco Model 7

Sub connection: 2" Threaded LPT / NPT Female, RTJ Flanged, Union 2" FIG.1502 Male/Female for optional.

### **Model 8:**

Dimensions: 8-1/8 "diameter dial case

Pressure range: 0-20000 psi (1000psi, 3000psi, 6000psi, 10000psi, 15000psi, 20000psi)

Standard end connection: 2" NPT/LPT male with a 1" LPT/NPT female.

Interchangeable with: Oteco Model 8

Sub connection: 2" LPT/NPT Female, RTJ Flanged, union FIG.1502 Male/Female for optional.

## Benefits

- Accuracy: +/-1.6, +/-2.5
- Operation temperature range of -50 to +65 Celsius degree (-50F to +150F)
- Rugged, accurate and dependable for years of trouble-free service.
- The gauge is filled with oil to prevent corrosion and to provide lubrication to all working parts. The combined effects of the oil and the gauge dampening mechanism eliminate fluctuations of the dial due to line vibration
- Available in Imperial or Metric.

