



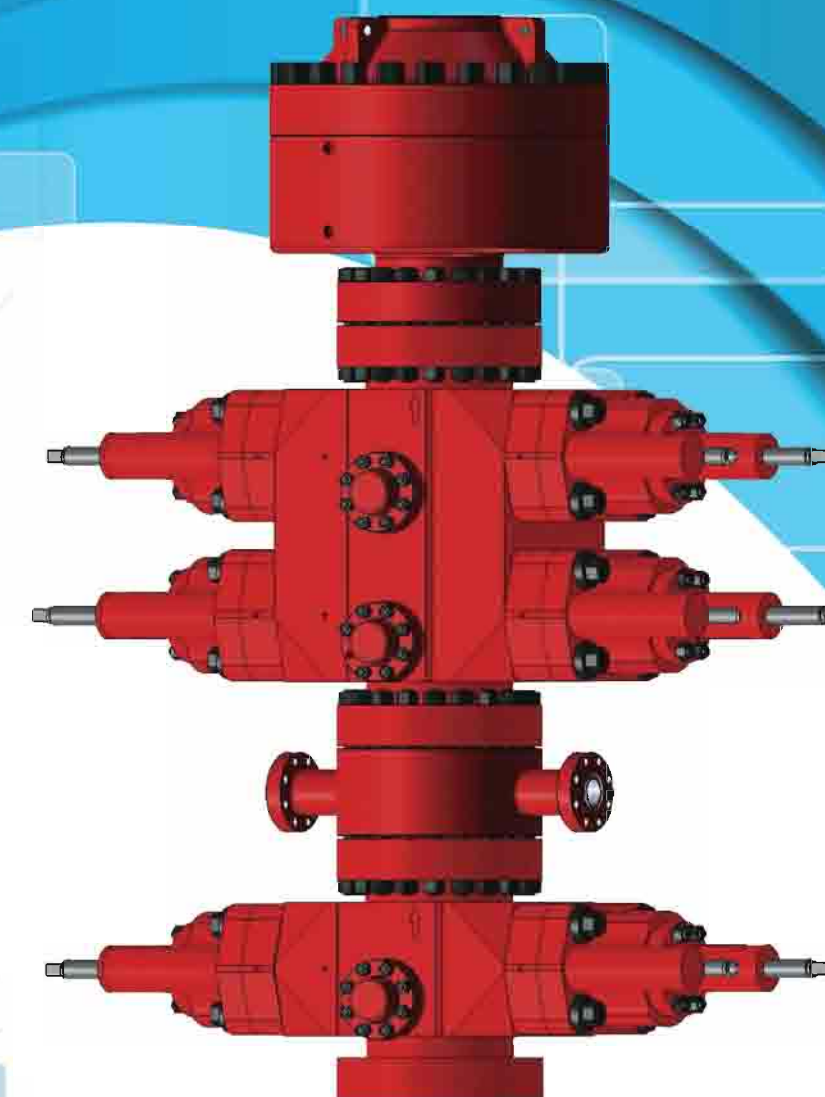
Supplier Contact:

Calgary Industrial Equipment & General Supplies Inc.

Web: <http://www.ciegs.com>

Email: info@ciegs.com

SMS: (403) 389-5344



CIE&GS



TABLE OF CONTENTS



TABLE OF CONTENTS	
07-08	TESTING EQUIPMENT
09	BOP SIZE AND TYPE SELECTION LIST
10	TU TYPE RAM BOP
11	TU TYPE SINGLE RAM BOP
12	TU TYPE DOUBLE RAM BOP
13	TLWS TYPE RAM BOP
14	TSL TYPE RAM BOP
15	TT81 SMALL BORE RAM BOP
16	TMSP ANNULAR DIVERTER
17	TGK TYPE ANNULAR BOP
18-19	TS SPHERICAL ANNULAR BOP
20	TH SURFACE TREATMENT TECHNOLOGY OF PREVENTER
21	FIX BORE PIPE RAM/PIPE SHEAR RAM/VARIABLE BORE RAMS
22	TH RUBBER SEALS
23	TH BOP CONTROL UNIT / CLOSING UNIT
24	TH DRILLING MANIFOLD
25-29	TH SNUBBING UNIT
30	SNUBBING UNIT POWER PACKAGE
31-34	TH SNUBBING UNIT





BOP SIZE AND TYPE SELECTION LIST



BOP size and type selection list

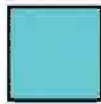
TH Ram BOP Size and Type Selection List									
Working Pressure (PSI)	Drift Diameter (in)								
	2 9/16	3 1/16	7 1/16	9	11	13 5/8	16 3/4	20 3/4	21 1/4
2000									
3000									
5000									
10000									
15000									



TU



TLWS



TSL



TT81

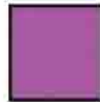
TH Annular BOP Size and Type Selection List										
Working Pressure (PSI)	Drift Diameter (in)									
	3 1/16	7 1/16	9	11	13 5/8	16 3/4	20 3/4	21 1/4	29 1/2	30
500										
1000										
2000										
3000										
5000										
10000										



TS



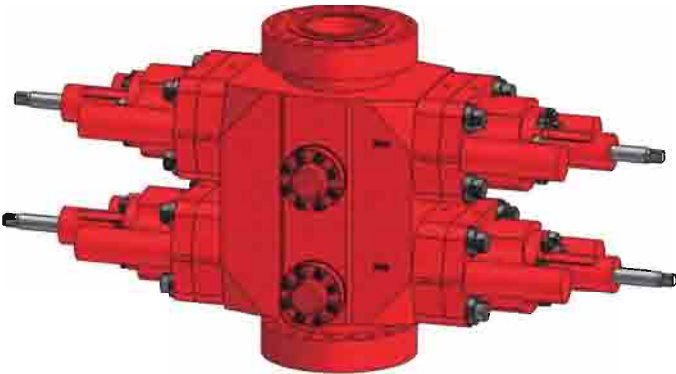
TMSP



TGK

TU Type Ram BOP

- Every parts of our TU BOP are fully inter-changeable with original.
- Fully forged body with AISI 4130 alloy steel with 75k yield strength.
- USA made rubber seals
- Ever-Slik® 1201/ 1301 two layers coating on all the surfaces that contact with wet well fluids for corrosion resistance.
- All the locking shafts and ram shafts are coated with HVOF Tungsten Carbide coating.
- Large Bore with Tandem Booster Shear design available
- All the bolts, studs and nuts are manufactured by an API 20E company which required by the API 16A latest version.



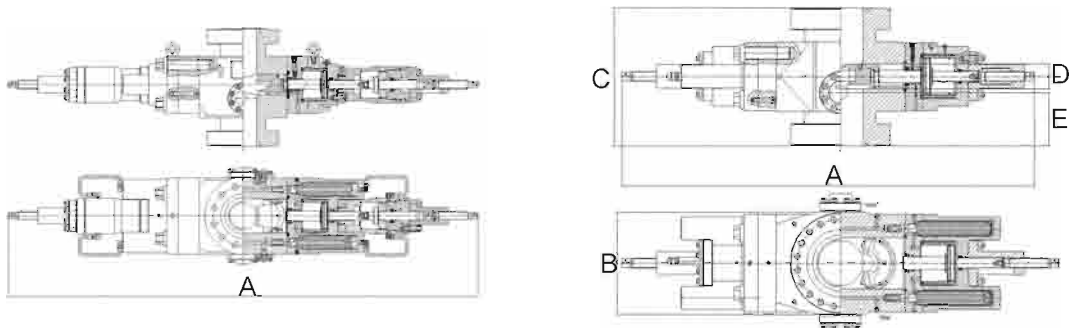


PRODUCT INTRODUCTION



TU Type Single Ram BOP

Capital letters specified in the picture below represents relevant size of single ram TU-type BOP. The details see the description and size list below.



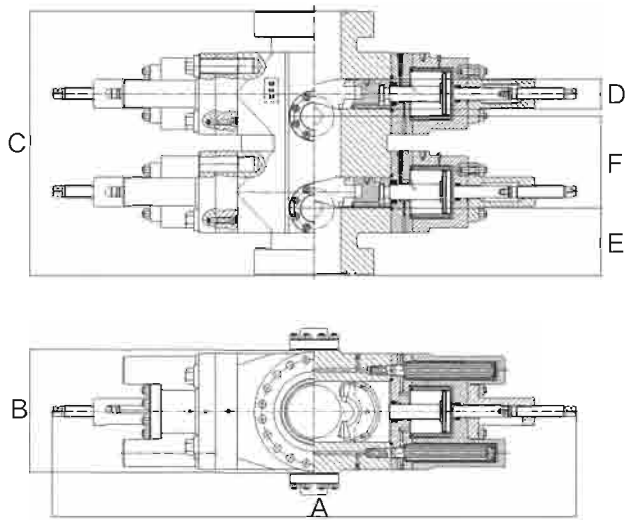
A-1 Length-bonnets closed, locking screws locked
A-2 Length-bonnets opened, locking screws unlocked
A-3 Length-bonnets closed, locking screws locked, with tandem boosters.
A-4 Length-bonnets opened, locking screws unlocked, with tandem boosters.

B Width-with side outlets
C-1 Height-flanged
C-2 Height-top studded bottom flanged
D Height of ram
E Centerline of side outlet below rams to bottom flange face.

Size (In.)	Rate Work-ing Pressure (psi)	Drift Diameter (In.)	A-1 (In.)	A-2 (In.)	A-3 (In.)	A-4 (In.)	B (In.)	C-1 (In.)	C-2 (In.)	D (In.)	E (In.)	Gross Weight (lb)
7 1/16	3000	7 1/16	75.00	109.45	113.88	124.14	20.34	24.06	20.12	5.50	8.46	2700
7 1/16	5000	7 1/16	75.00	109.45	113.88	124.14	20.34	27.50	22.50	5.50	10.28	2900
7 1/16	10000	7 1/16	75.00	109.45	113.88	124.14	20.65	30.56	25.5	5.50	11.13	3650
7 1/16	15000	7 1/16	75.00	109.45	113.88	124.14	20.65	31.81	27.2	5.50	11.74	3900
11	3000	11	103.29	122.20	151.02	163.50	25.18	29.12	25.98	6.75	9.85	5500
11	5000	11	103.29	122.20	151.02	163.50	25.18	34.28	28.62	6.75	12.47	5800
11	10000	11	103.29	122.20	151.02	163.50	25.68	35.73	29.04	6.75	13.38	6600
11	15000	11	123.85	175.37	163.45	178.46	32.04	44.94	34.96	9.25	16.76	11350
13 5/8	3000	13 5/8	115.63	130.87			29.22	31.31	27.50	7.50	10.46	7850
13 5/8	5000	13 5/8	115.63	130.87			29.22	33.81	29.50	7.50	11.35	8200
13 5/8	10000	13 5/8	117.62	132.88	161.87	180.35	30.28	41.69	33.91	7.50	15.42	11200
13 5/8	15000	13 5/8	139.25	214.50			39.45	53.69	41.22	8.00	21.52	25700
16 3/4	3000	16 3/4	127.38	204.54			35.80	40.06	32.46	9.25	13.37	15600
16 3/4	5000	16 3/4	129.35	202.28			35.80	43.06	34.65	9.25	14.87	15800
16 3/4	10000	16 3/4	139.15	218.46			39.56	49.69	39.63	9.25	19.43	26800
20 3/4	3000	20 3/4	143.26	226.58	213.52	232.60	39.50	40.56	33.75	8.00	14.52	16200
21 1/4	2000	21 1/4	143.37	226.80	213.54	232.85	39.50	37.19	31.50	8.00	12.63	15400
21 1/4	5000	21 1/4	163.48	247.42			42.45	50.94	40.25	13.50	18.05	36000

TU Type Double Ram BOP

Capital letters specified in the picture below represents relevant size of double ram TU-type BOP. The details see the description and size list below.



C-1 Height-flanged
C-2 Height-top studded bottom flanged
E Centerline of side outlet below rams to bottom flange face.
F Centerline of side outlet between rams to bottom flange face

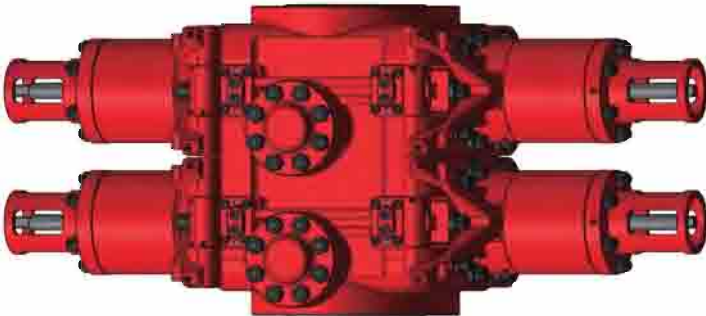
Size (In.)	Rate Work-ing Pressure (psi)	Drift Diameter (In.)	C-1 (In.)	C-2 (In.)	E (In.)	F (In.)	Gross Weight (lb)
7 1/16	3000	7 1/16	41.00	36.70	8.46	16.94	5300
7 1/16	5000	7 1/16	44.19	40.25	10.28	16.69	5700
7 1/16	10000	7 1/16	48.63	43.54	11.13	18.06	7150
7 1/16	15000	7 1/16	50.68	45.46	11.74	18.06	7500
11	3000	11	49.25	44.45	9.85	20.19	11500
11	5000	11	54.50	46.28	12.47	20.18	11850
11	10000	11	55.88	47.25	13.38	20.19	13100
11	15000	11	69.65	60.12	16.76	24.94	21500
13 5/8	3000	13 5/8	53.38	47.00	10.46	22.06	17350
13 5/8	5000	13 5/8	55.88	48.46	11.35	22.06	18050
13 5/8	10000	13 5/8	66.63	56.51	15.42	24.94	22900
13 5/8	15000	13 5/8	81.75	67.04	21.52	28.06	53100
16 3/4	3000	16 3/4	65.88	55.58	13.37	25.81	33200
16 3/4	5000	16 3/4	68.88	58.78	14.87	25.81	33600
16 3/4	10000	16 3/4	77.75	66.91	19.43	28.06	54200
20 3/4	3000	20 3/4	66.23	60.25	14.52	25.26	32600
21 1/4	2000	21 1/4	62.75	56.91	12.63	25.56	31800
21 1/4	5000	21 1/4	82.38	73.16	18.05	31.06	74000



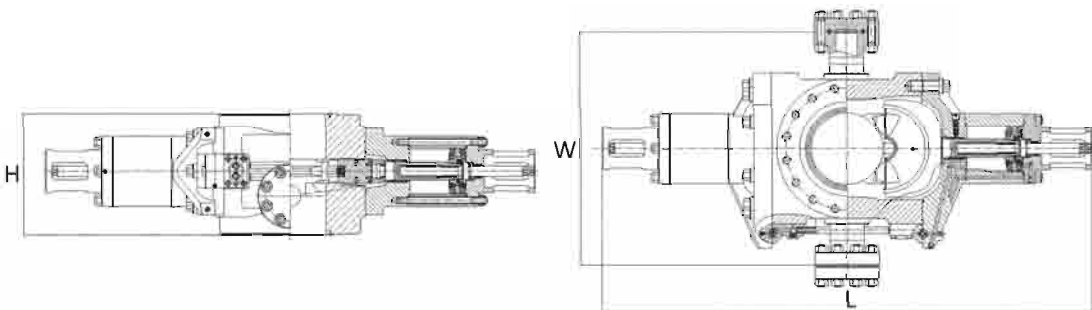
PRODUCT INTRODUCTION



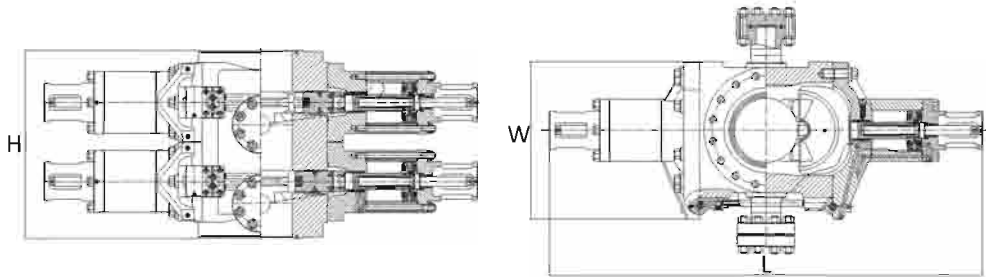
TLWS Type Ram BOP



- TLWS Ram BOP is fully interchangeable with the original.
- The Ram BOP is compact design and light weighted.
- Casted body with AISI 4130 Alloy Steel. Up to 13 5/8" bore size and 5,000psi working pressure.
- VBR ram and Shear Ram available.



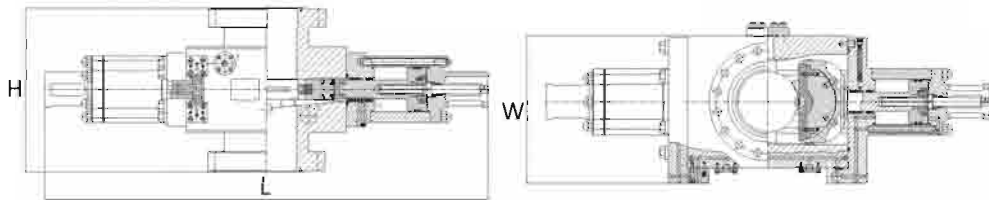
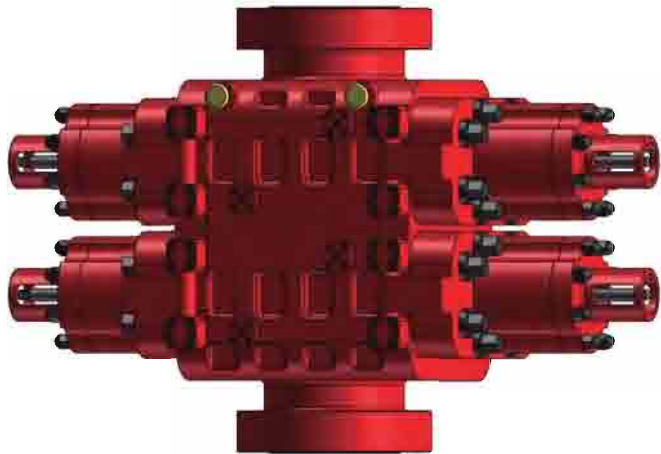
size (In.)	Rated working pressure (psi)	Drift diameter (In.)	L (In.)	W (In.)	H (In.)	Gross weight (lb)
7 1/16	5000	7 1/16	58.25	21.45	15.50	1870
9	3000	9	79.12	23.15	14.26	3022
11	3000	11	72.63	26.20	15.07	2338
11	5000	11	89.25	29.50	19.53	4410
13 5/8	5000	13 5/8	92.72	33.50	23.00	6145



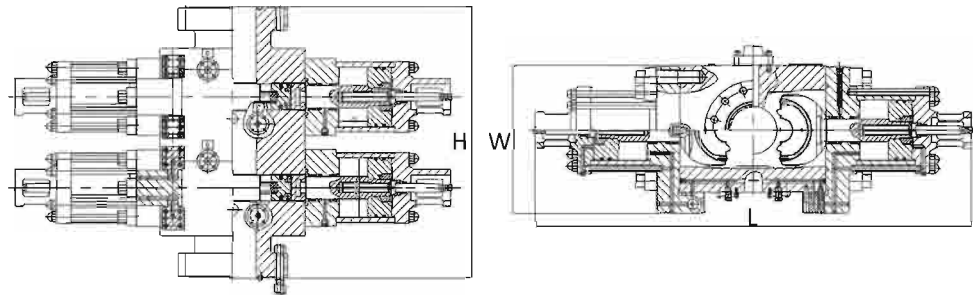
size (In.)	Rated working pressure (psi)	Drift diameter (In.)	L (In.)	W (In.)	H (In.)	Gross weight (lb)
7 1/16	5000	7 1/16	58.25	21.45	26.71	2632
9	3000	9	79.12	23.15	29.60	6054
11	3000	11	72.63	26.20	29.37	4595
11	5000	11	89.25	29.50	33.00	8245
13 5/8	5000	13 5/8	92.72	33.50	39.75	11795

TSL Type ram BOP

- Fully interchangeable with major brand.
- Side open door with hinges for easy ram change.
- Up to 13 5/8" bore size and 10,000 psi working pressure.
- Low cost casted body.
- Long time proven design.
- VBR and Shear Ram are available.



size (In.)	Rated working pressure (psi)	Drift diameter (In.)	L (In.)	W (In.)	H (In.)	Gross weight (lb)
7 1/16	10000	7 1/16	79.00	30.00	31.85	5200
11	10000	11	102.00	34.25	42.15	13500
13 5/8	5000	13 5/8	100.39	32.28	37.00	8448
13 5/8	10000	13 5/8	128.75	39.60	48.50	16300



size (In.)	Rated working pressure (psi)	Drift diameter (In.)	L (In.)	W (In.)	H (In.)	Gross weight (lb)
7 1/16	10000	7 1/16	79.00	30.00	52.75	9830
11	10000	11	102.00	34.25	60.25	21780
13 5/8	5000	13 5/8	100.39	32.28	50.15	16900
13 5/8	10000	13 5/8	128.75	39.60	66.15	25500

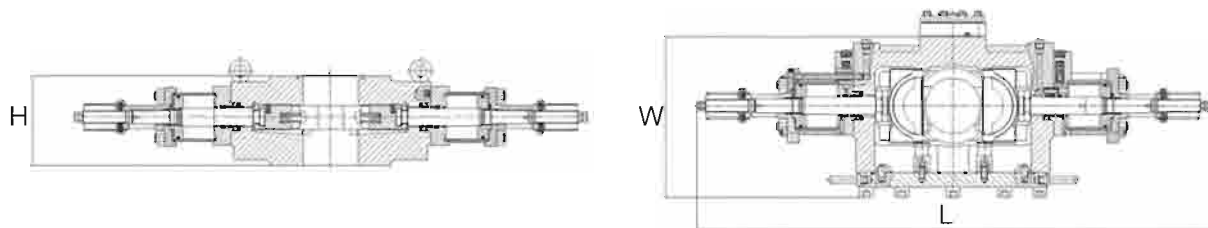
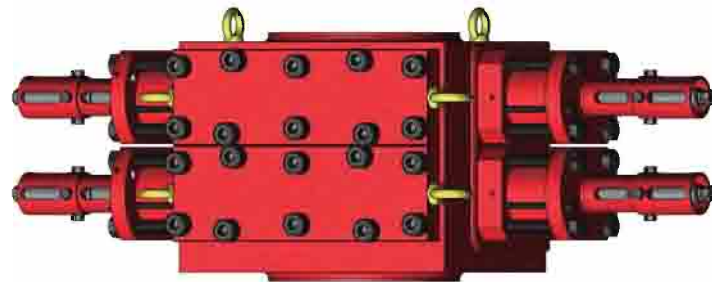


PRODUCT INTRODUCTION

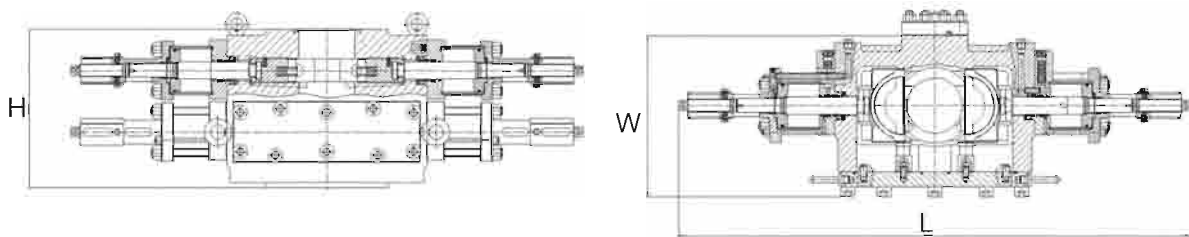


TT81 Small Bore Ram BOP

- The most compact design for small bore ram BOP
- Fully interchangeable with major brand.
- Side open cover for ram change easily.
- Light weighted and low-cost design
- Double and Single Ram are available



size (In.)	Rated working pressure (psi)	Drift diameter (In.)	L (In.)	W (In.)	H (In.)	Gross weight (lb)
7 1/16	3000	7 1/16	63.40	20.60	12.80	1550
7 1/16	5000	7 1/16	64.90	21.00	12.80	1650
9	3000	9	70.65	23.00	13.25	1820
9	5000	9	70.65	23.20	13.00	1910

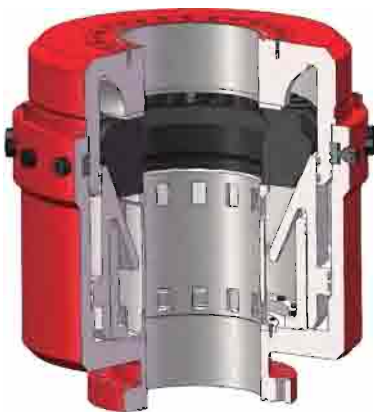


size (In.)	Rated working pressure (psi)	Drift diameter (In.)	L (In.)	W (In.)	H (In.)	Gross weight (lb)
7 1/16	3000	7 1/16	63.40	20.60	21.30	2560
7 1/16	5000	7 1/16	64.90	21.00	21.30	2780
9	3000	9	70.65	23.00	21.50	3120
9	5000	9	70.65	23.20	21.50	3160

TMSP Annular Diverter

- Two size alliable 29" 500psi and 21 1/4" 2000psi.
- The extra-large bore design will allow the largest surface casing go though without removing the diverter.
- Reliable and low-cost design with only two moving parts, the piston and packing element.
- Field-proven for 40 years.
- Ability to seal off the open hole completely without any insert.
- The packing element is back to front designed for tool joints tripping under pressure.
- Fully interchangeable with major brand.

Internal costing Ever-slik 1201/1301 available



			MSP 21 1/4"2000-psi		MSP 29.00"500-psi	
Bore			21 1/4in	539.75mm	29.50in	749mm
Head Type			Latched	Latched	LockRing	LockRing
Working Pressure			2000psi	2000psi	500psi	500psi
Gal.to close			31gal	157L	63gal	238L
Gal.to Open			19gal	83.5L	—	—
Height	Flanged Bottom	Rated	56 1/2in	1437mm	69 1/8in	1756mm
Weight	Flanged Bottom	Rated	17005lb	7729.70Kg	23130lb	10513.54Kg
Body clearance Diameter			54 3/8in	1380mm	75in	1905mm



PRODUCT INTRODUCTION



TGK Type Annular BOP

- Field proven high-pressure design can be built up to 13 5/8" 10,000psi.
- Only two moving components for less part wear and maintenance.
- Screwed head design for easy access to packing element.
- Fully closing packing element to seal the well bore without tubulars inside.
- Long lasting elastomer compounds provide the stripping ability under pressure.
- Fully interchangeable with original design.
- OEM packing element is an optional.
- Internal corrosion resistance coating available



Drift Diameter (In)	Working Pressure (Psi)	Oil Mass Off (gal)	Oil Mass On (gal)	Boundary Dimension (In)	Total weight (Lbs)
7 1/16	5000	3.86	3.30	29 1/4*36 7/8	4000
7 1/16	10000	9.42	7.08	43 3/4*48 1/8	12200
11	5000	9.81	7.98	37 1/2*47 13/16	8200
13 5/8	3000	11.36	8.94	45 1/2*45 1/4	8784
13 5/8	5000	17.98	14.16	45 1/2**54 1/8	14800
13 5/8	10000	30.64	30.91	61.18**70.35	33418

TS Spherical Annular BOP

Spherical rubber core annular BOP mainly consists of five parts, such as casing, top cap, piston, dust prevention ring; The rubber core is semi spherical, and the support rib is radial shape along the semi annulus with high rubber reserve volume; sealing assistance capacity under well pressure is strong with the reduction of frictional resistance when opening and closing;

Radial cross section of piston is Z-shaped, which has short distance of travel, low height and large radial dimension, and has the function of sealing assistance under well pressure; Adopt ip-shaped combined sealing ring, and set as wearing ring without machining.

Steam pipeline runs through the upper and bottom part of top cap outer diameter of low-temperature annular BOP. Saturated steam enters into the pipeline and heats along a cycle of top cap (for clients to choose)

All parts contacting well liquid inside high sulfur-resistant preventer shall take corrosion and wear resistant coating or bead weld with hard alloy to achieve the highest level of H₂S and CO₂ resistant effect (for clients to choose);

Connection type of top cap and casing: bolt connection and wedge block connection;

See detailed type and technical parameters in the table below.



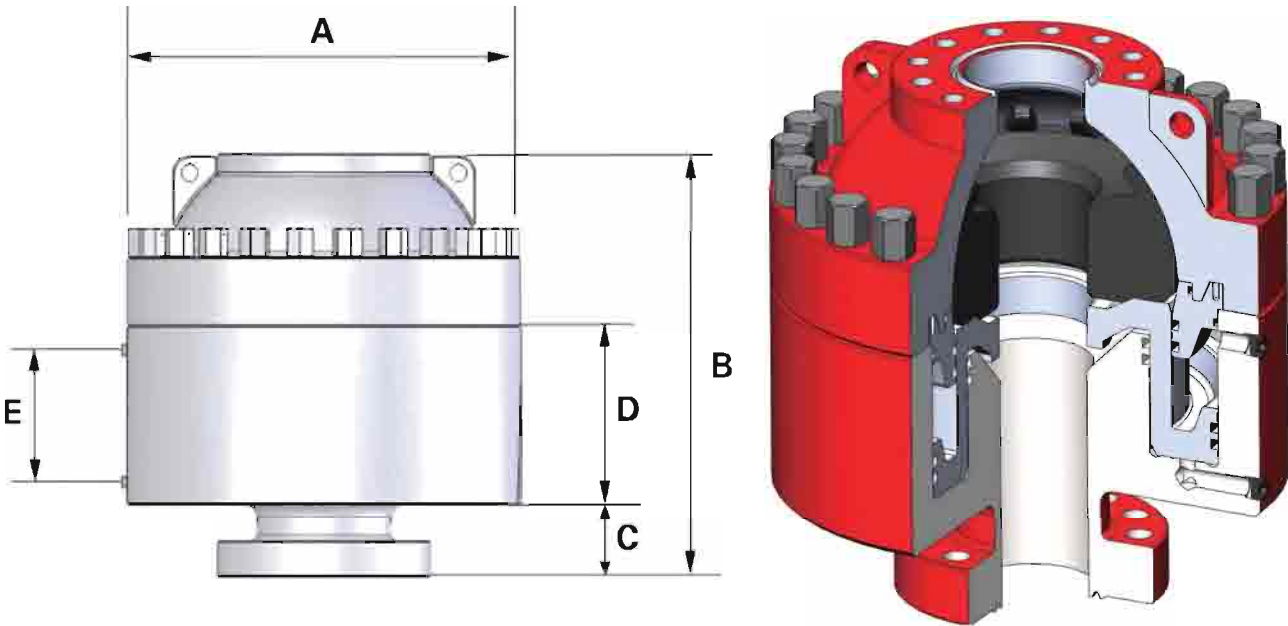
1	2	3	4	5
Nut	Stud	Anchor Shackle	Pin Roll	Cotter Pin
6	7	8	9	10
Upper Housing, Studded	Sealing Element	Type O seal ring	Type O seal ring	Adapter Ring
11	12	13	14	15
Seal, Adapter ID	Wear Band	Piston	Wear Band	Seal, Piston OD
16	17	18	19	20
Seal, Piston ID	Wear Band	Oil Port Joint	Lower Housing, Flange	Pipe Plug



PRODUCT INTRODUCTION



TH Surface Treatment Technology of Preventer



Sealing face of ram BOP and annular BOP both adopt corrosion resistant treatment process of surface painting with Everslik, which greatly improves wearing capacity and corrosion resistance of sealing surface and extends the service life of BOP. It's also possible to spray weld hard alloy on the surface contacting with well liquid to improve the corrosion resistance to H₂S.

Size (in)	Drift Diameter (in)	Working Pressure (Psi)	Hydraulic Control Pressure (Psi)	Oil Mass Off (L)	Oil Mass On (L)	Boundary Dimension (in)					Total weight (lb)	Outlet and Inlet Connection of Hydraulic Oil
						A	B	C	D	E		
3 1/8	3 1/8	1000	500	2.8	2.3	13.00	16.73	2.76	7.24	5.47	770	NPT 3/8"
7 1/16	7 1/16	3000	1500	20	13	27.76	29.13	24.92	12.40	9.57	2640	NPT 1"
7 1/16	7 1/16	5000	1500	21	15	29.33	31.38	26.65	12.17	8.66	3300	NPT 1"
9	9	3000	1500	34	22.8	35.51	32.99	25.04	19.45	10.24	5275.6	NPT 1"
9	9	5000	1500	42	33	40.00	33.86	24.33	19.69	10.31	6569.2	NPT 1"
11	11	3000	1500	50	39	39.88	34.37	26.46	14.21	10.16	6490	NPT 1"
11	11	5000	1500	72	56	45.12	43.70	29.13	17.09	12.32	10285	NPT 1"
13 5/8	13 5/8	5000	1500	94	69	50.04	46.30	28.78	18.39	13.31	14113	NPT 1"
20 3/4	20 3/4	3000	1500	173	110	54.13	50.91	210.24	22.40	16.30	15386.8	NPT 1"
21 1/4	21 1/4	5000	1500	241	181	88.19	67.64	212.40	47.28	22.20	44506	NPT 1"

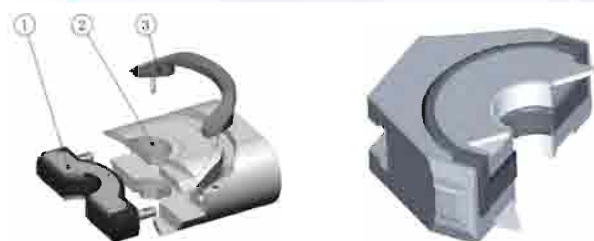




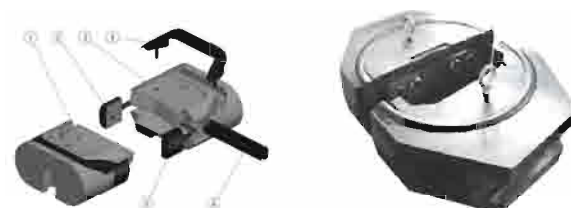
PRODUCT INTRODUCTION



Fix Bore Pipe Ram



Pipe Shear Ram



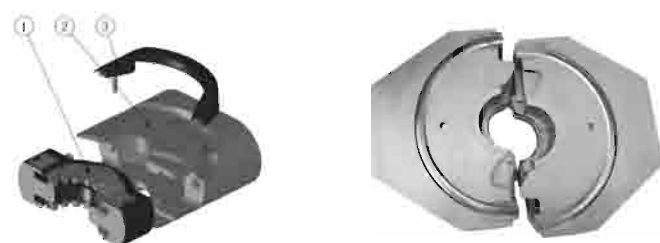
Cutting ram can cut out the tubular column in the well to seal the well head entirely, and also can be used as blind ram when no tubular column in the well. The installation of cutting ram in the BOP is same as common ram.

Use as blind ram under common condition while use as cutting ram under emergent condition; Cutting ram can be cut out drill stem many times with no damage to blade. The worn blade can be reused after repairing. The cutting life of cutting ram produced by our company is more than 5 times, so it's allowed to change seal rubber core.

The blade and ram body of common cutting ram are integrated;

The blade of high sulfur-resistant cutting ram adopts separated type. The blade can be changed after damaged, and ram body can be used repeatedly;

Variable bore rams



Variable diameter ram can be used to seal tubular columns in different diameters. It consists of variable diameter ram body, top rubber core and rubber core before variable. The installation of variable diameter ram is same as common ram with no need to change any part of the BOP.

TH Rubber seals





PRODUCT INTRODUCTION



TH BOP Control Unit / Closing Unit

Overview: It's one of necessary and important device for safe operation in oil field, and mainly used for controlling the opening and closing of well head BOP and open group valve to prevent blowout accident during well drilling and repairing operation. With continually perfected safe operation in oil field, ground control device has been applied widely in oil field.



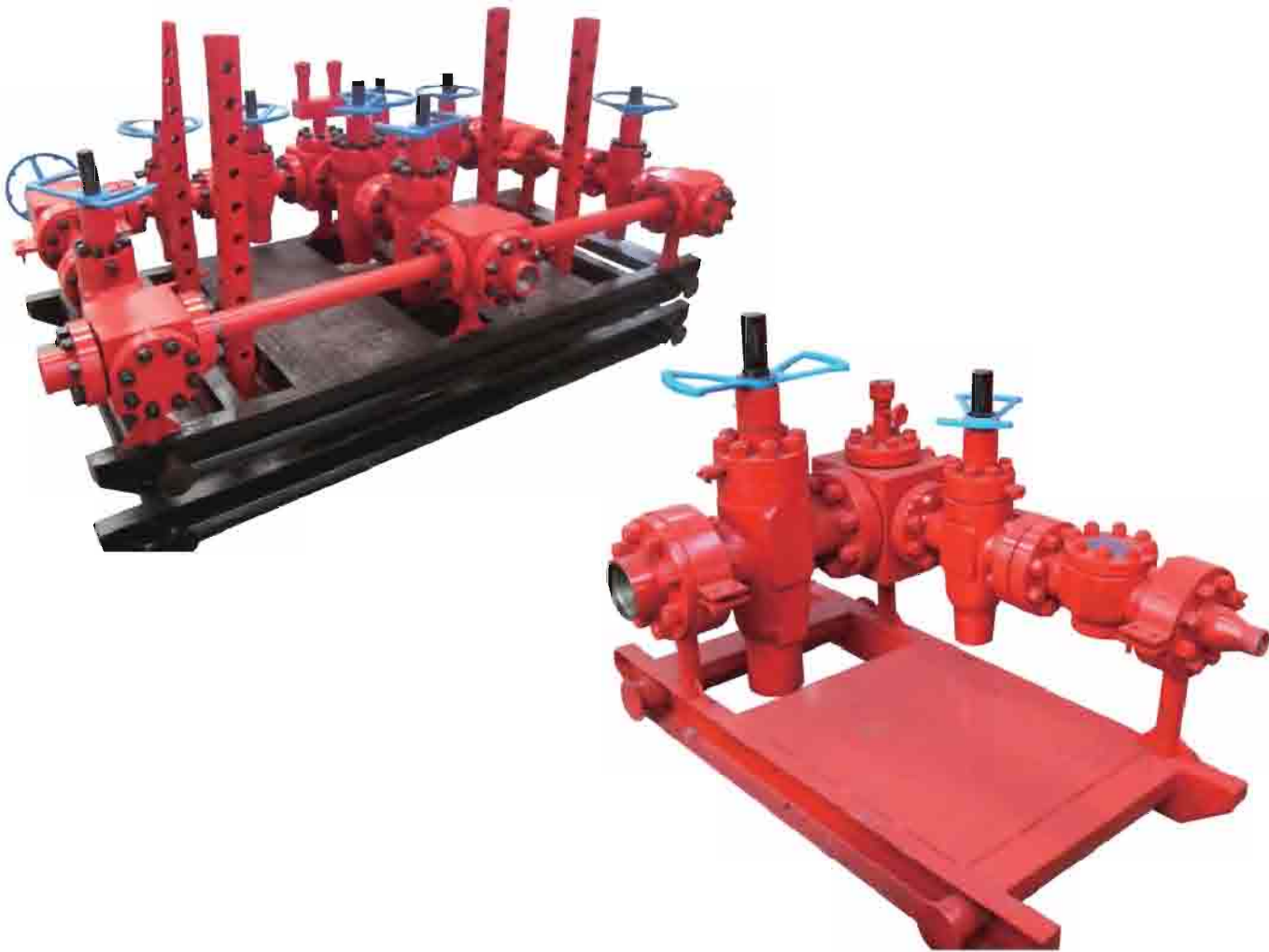
Type	Quantity of control object	Energy accumulator group			effective volume of oil tank (L)	Motor power (W)	Pump system flux			Boundary dimension (mm)
		Total volume (L)	available liquid volume (L)	Arrange mode			electric oil pump (L/min)	Pneumatic oil pump (ml/pulse)	Manual pump (ml/pulse)	
FK50-2	2	25*2	25	Postposition	180	5.5	10		28	2000x1800x2040
FK125-3	3	25*5	62.5	Postposition	320	7.5	11		28	2600x1800x2400
FKQ240-3	3	40*6	120	Postposition	440	11	23	60		3500x2100x2220
FKQ320-4	4	40*8	160	Postposition	650	11	23	60		3700x2100x2400
FKQ480-5	5	40*12	240	Offset	890	15	30	60*2		5000x2200x2400
FKQ640-6	6	40*16	320	Offset	1300	18.5	40	120*2		5400x2200x2400
FKQ1280-7	7	80*6	640	Offset	1600	18.5*2	40*2	120*2		6200x2400x2600

TH Drilling Manifold

Choke and kill manifold is a necessary well controlling device to implement new technology of balanced well drilling.

As per structure style: single wing and double wing; lifting and vertical. As per control method: manual and hydraulic.

It mainly consists of choke valve, gate valve, pressure meter, universal connector, buffer tube and check valve.



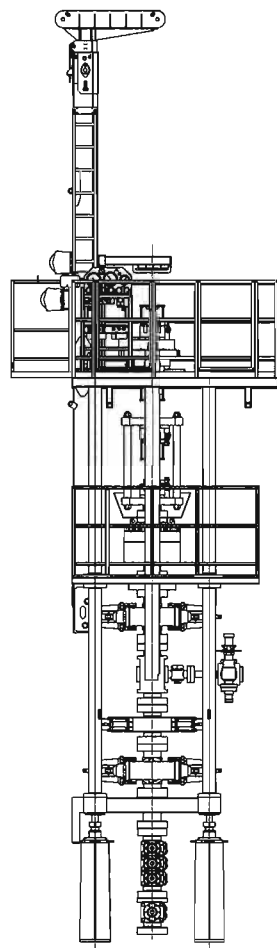


PRODUCT INTRODUCTION



TH Snubbing Unit

SNUBBING UNIT 170K



TECHNICAL PARAMETERS

Power type: diesel engine drive;
Control method: driller's station control at high height
Pressured working form: independent/auxiliary pressured working machine
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16") ;
Rated working pressure: 5000psi;
Maximum torque of active wheel: 4000N.M;
Rated load of mast: 0.5T;
Lift distance of oil cylinder: 3500mm;
Maximum lifting force (@3000psi) : 77T (170, 000lbs) ;
Maximum pressing pressure (3000psi) : 42.5T (93, 000lbs) ;
Lifting speed: 18.6m/min; 31 m/min (high speed differential ratio)
Pressing speed: 28.1m/min.

MAIN ENGINE CONFIGURATION

Separately from bottom to top:
Safe cava: KW18-35;
Safe 3-ram preventer: 3FZJQ18-35;
Working ram preventer: TFZ18-35, 2 sets;
Single ram preventer: FZ18-35;
Balanced pressure relief system: 1 set
Working annular preventer: FH18-35;
Fixed cava: WKCZ18-80T, 2 sets;
Variable cava: WKFD18-80T, 2 sets.

TH Snubbing Unit

SNUBBING UNIT 225K



TECHNICAL PARAMETERS

Power type: diesel engine drive;
Control method: driller's station control at high height
Pressured working form: independent/auxiliary pressured working machine
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16") ;
Rated working pressure: 5000psi (10000psi optional)
Maximum torque of active wheel: 8000N.M;
Rated load of mast: 1.5T;
Lift distance of oil cylinder: 3579mm;
Maximum lifting force (3000psi) : 110T (225, 000lbs) ;
Maximum pressing pressure (3000psi) : 60T (132, 000lbs) ;
Lifting speed: 13.2m/min (4leg) ; 26.5m/min (2leg) ;
Pressing speed: 25m/min (4leg) ; 50 m/min (2leg) .

MAIN ENGINE CONFIGURATION

Separately from bottom to top:
Working ram preventer: TFZ18-35 or FZ18-70, 2sets;
Balanced pressure relief system: 1 set
Working annular preventer: FH18-35;
Fixed cava: 2 sets;
Variable cava: 2 sets;
Applicable oil tube size of cava: 1" ~5-1/2".

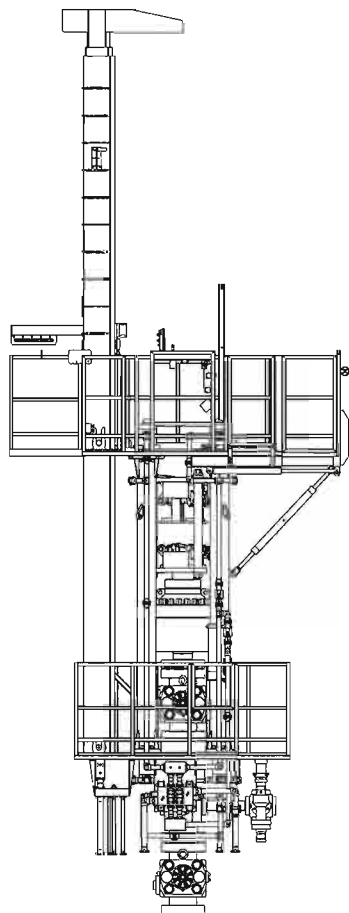


PRESSURED WORK DEVICE



TH Snubbing Unit

SNUBBING UNIT 240K



TECHNICAL PARAMETERS

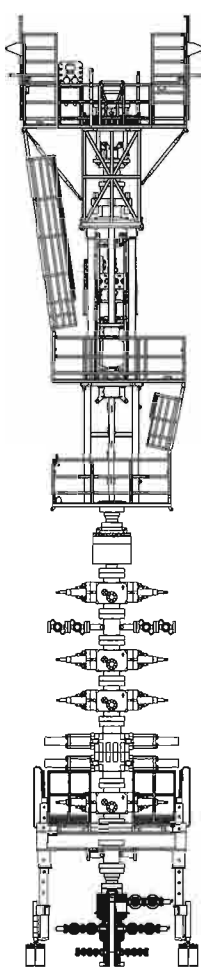
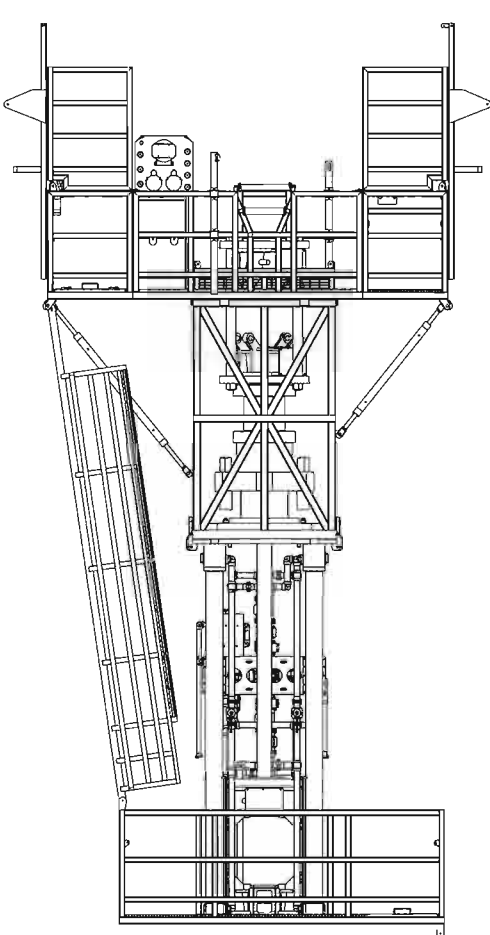
Power type: diesel engine drive;
Control method: driller's station control at high height
Pressured working form: independent/auxiliary pressured working machine
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16") ;
Rated working pressure: 5000psi (10000psi optional)
Maximum torque of active wheel: 8000N.M;
Rated load of mast: 1.5T;
Lift distance of oil cylinder: 3579mm;
Maximum lifting force (3000psi) : 109T (240, 000lbs) ;
Maximum pressing pressure (3000psi) : 75T (165, 000lbs) ;
Lifting speed: 11.4m/min (4leg) ; 22.8 m/min (2leg) ;
Pressing speed: 19.5m/min (4leg) ; 38.9 m/min (2leg) .

MAIN ENGINE CONFIGURATION

Working ram preventer: TFZ18-35 or FZ18-70, 2sets;
Balanced pressure relief system: 1 set
Working annular preventer: FH18-35;
Fixed cava: 2 sets;
Variable cava: 2 sets;
Applicable oil tube size of cava: 1" ~5-1/2".

TH Snubbing Unit

SNUBBING UNIT 340K



TECHNICAL PARAMETERS

Power type: diesel engine drive;
Control method: driller's station control at high height
Pressured working form: independent/auxiliary pressured working machine
Drift diameter: $\varnothing 280\text{mm}$ (11") ;
Rated working pressure: 10000psi;
Maximum torque of active wheel: 17550N.M (13000 ft-lb) ;
Maximum torque of rotary cylinder: 29700N.m (22000ft.lb) ;
Rated load of mast: 4T;
Lift distance of oil cylinder: 3048mm;
Maximum lifting force (3000psi) : 154T (340,000lbs) ;
Maximum pressing pressure (3000psi) : 85.8T (190,000lbs) ;
Lifting speed: 13.9m/min (4leg) ; 28m/min (2leg) ;
Pressing speed: 25.8m/min (4leg) ; 51.7 m/min (2leg) .

MAIN ENGINE CONFIGURATION

Rotary tray and rotary cylinder system
Working ram preventer: 11-10000;
balanced pressure relief system: 1 set;
Fixed Cava: 2 sets;
Variable Cava: 2 sets;
Cava type: CAVINS"F" type
Applicable oil tube size of Cava: 2-3/8" ~8-5/8".

WORKING WINDOW CONFIGURATION (OPTIONAL)

Working window is used for tool cluster, cable pump or control cable.
Main body size: 1510mm*1510mm*3030mm;
Lower platform size: 3080mm*2630mm*1240mm.

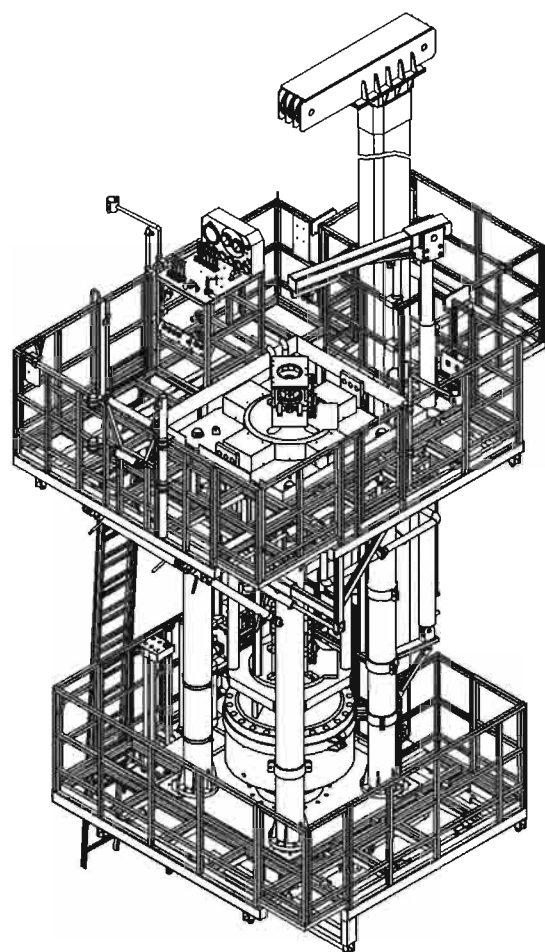


PRESSURED WORK DEVICE



TH Snubbing Unit

SNUBBING UNIT 400K



TECHNICAL PARAMETERS

Power type: diesel engine drive;
Control method: driller's station control at high height
Pressured working form: independent/auxiliary pressured working machine
Drift diameter: $\varnothing 280\text{mm}$ (11") ;
Rated working pressure: 5000psi;
Maximum torque of active wheel: 16000N.M;
Rated load of mast: 4T;
Lift distance of oil cylinder: 3048mm;
Maximum lifting force (3000psi) : 179T (400,000lbs) ;
Maximum pressing force (3000psi) : 84T (185,000lbs) ;
Lifting speed: 8.2m/min (4leg) ; 16.5m/min (2leg) ;
Pressing speed: 17.5m/min (4leg) ; 35m/min (2leg) .

MAIN ENGINE CONFIGURATION

Working ram preventer: TFZ18-35, 2sets;
Balanced pressure relief system: 1 set
Annular preventer: FH18-35;
Rotary tray and rotary cylinder system;
Fixed cava: 2 sets;
Variable cava: 2 sets;
Cava type: : CAVINS"F" type;
Applicable oil tube size of cava: 2-3/8" ~8-5/8".

Snubbing Unit Power Package

- Compact and Fully Enclosed Design with Heavy duty Skid
- Two side open door for easy access.
- Reliable CAT or Cummins Engine at Customer's choice.
- WPT brand Clutch and Drive Box
- All Hydraulic Components are Made in USA including Pumps and Control Valves
- In house Design and Built Fuel Tank, Easy to Clean and come with Level Indicator.
- Custom Built User-Friendly Control Panel





PRESSURED WORK DEVICE



TH Snubbing Unit

7 1/16-5000 QUICK RAM BOP



TECHNICAL PARAMETERS

Type: 7 1/16-5000;
Control method: hydraulic control;
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16 ") ;
Rated working pressure: 5000psi;
Connection form: 7 1/16" (180 mm) x 5000psi (35 Mpa)
R-46 flange;
Materials: conforming to NACE Trim;
Available ram: 1" (25mm) - 5 1/2" (139.7mm) " .

7 1/16-10000 RAM BOP

TECHNICAL PARAMETERS

Type: 7 1/16-10000;
Control method: hydraulic control;
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16 ") ;
Rated working pressure: 10000psi;
Connection form: 7 1/16" (179 mm) x 10000 psi (70 Mpa)
BX156 flange
Materials: conforming to NACE Trim;
Available ram: 2-3/8 " 、 2-7/8 " 、 3-1/2 " .



TH Snubbing Unit

11-10000 RAM BOP



TECHNICAL PARAMETERS

Type: 11-10000;
Control method: hydraulic control;
Drift diameter: $\varnothing 279.4\text{mm}$ (11 ") ;
Rated working pressure: 10000psi;
Connection form: 11" (279.4 mm) x 10000 psi (70 Mpa) BX158 flange;
Materials: conforming to NACE Trim;
Available ram: 2-3/8 " 、 2-7/8 " 、 3-1/2 " .



PRESSURED WORK DEVICE



TH Snubbing Unit

7 1/16-5000 ANNULAR BOP



TECHNICAL PARAMETERS

Type: 7 1/16-5000;
Control method: hydraulic control;
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16") ;
Rated working pressure: 5000psi;
Connection form: 7 1/16" (179 mm) x 5000psi (35 Mpa)
R46 Flanged flange
Materials: conforming to NACE Trim;
Seal pipe diameter: 0-180mm.

11-5000 ANNULAR BOP



TECHNICAL PARAMETERS

Type: 11-5000;
Control method: hydraulic control;
Drift diameter: $\varnothing 279.4\text{mm}$ (11") ;
Rated working pressure: 5000psi;
Connection form: upper standard thread 11" -5000psi;
lower flange 11" -10000psi
Connecting steel ring: threaded connecting steel ring R54 at the top, flanged connecting steel ring BX158 at the bottom;
Materials: conforming to NACE Trim;
Seal pipe diameter: 0-279.4mm.

TH Snubbing Unit

KW 18-80T



TECHNICAL PARAMETERS

Type: KW 18-80T;
Control method: hydraulic control;
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16") ;
Rated working load: 80T;
Connection form: bolt;
Materials: conforming to NACE Trim;
Cava gear size: 1" (25mm) - 5 1/2" (139.7mm) " .

KWZ 18-80T



TECHNICAL PARAMETERS

Type: KWZ 18-80T;
Control method: hydraulic control;
Drift diameter: $\varnothing 180\text{mm}$ (7 1/16") ;
Rated working load: 80T;
Connection form: bolt;
Materials: conforming to NACE Trim;
Cava type: bearing and protecting cava group;
Cava gear size: 1" (25mm) - 5 1/2" (139.7mm) " .

"F" TYPE SLIP



TECHNICAL PARAMETERS

Type: F type slip;
Control method: hydraulic control;
Drift diameter: $\varnothing 257\text{mm}$ (10 1/8") ;
Rated working load: 145T (320,000lbs) ;
Connection form: bolt;
Materials: conforming to NACE Trim;
Cava gear size: 2 3/8" (60.3mm) - 8 5/5" (219mm) " .