

# Pressure Control Equipment



# Annular Blowout Preventers (API-16A)

We supply type S and type G annular blowout preventers; their sizes and models are in the table below. Type S annular blowout preventers have bolted-cover and wedge-cover; type G annular type blowout preventers have screwed-head and latched-head. Our blowout preventers are manufactured in accordance with API Specification 16A, Third Edition and NACE MR0175 per API Specification 16A, Temperature T20. They meet the applicable API and NACE requirements for H2S service.



## Annular BOP Sizes and Models

Working Pressure (psi)	Bore (inches)							
	7-1/16	9	11	13-5/8	16-3/4	18-3/4	20-3/4	21-1/4
10,000								
5,000								
3,000								
2,000								

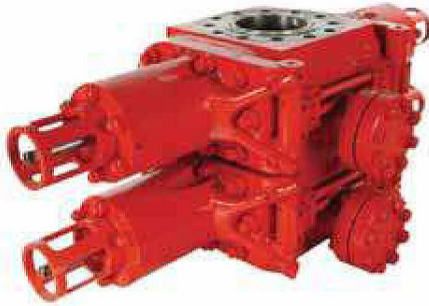
## Annular BOP Specifications\*

Bore (inches)	7-1/16		9		11			13-5/8			20-3/4	21-1/4
<b>Working Pressure (psi)</b>	3,000	5,000	3,000	5,000	3,000	5,000	10,000	3,000	5,000	10,000	3,000	2,000
<b>Operating Pressure (psi)</b>	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
<b>Gallons to Close</b>	4.92	4.57	7.23	11.05	11.00	18.67	30.58	23.50	23.58	40.16	43.40	31.10
<b>Gallons to Open</b>	3.43	3.21	5.03	8.72	6.78	14.95	24.67	14.67	17.41	32.64	26.90	18.90
<b>Width (inches)</b>	29	29	35-1/2	40	39-7/8	44-3/4	57	46-3/8	50	64-1/2	54-1/8	52-3/4
<b>Height (inches), Studded Top, Flanged Bottom</b>	29-1/8	30-7/8	32-1/2	36-1/2	32-7/8	41-1/2	53	40-11/16	44-15/16	58-3/4	48-7/16	52-1/2
<b>Weight (lbs), Studded Top, Flanged Bottom</b>	2,900	3,175	4,775	6,800	5,825	9,550	23,000	9,100	13,650	32,475	14,600	15,100
<b>Ring Gasket</b>	R-45	R-46	R-49	R-50	R-53	R-54	BX-158	R-57	BX-160	BX-159	R-74	R-73

\*This is only a partial listing of our annular blowout preventers. Data in this table are for reference only.

# Ram Blowout Preventers (API-16A)

We supply LWP, LWS, SL/SLX, LXT style, and type U style ram blowout preventers; their sizes, models and technical specifications are in the following tables. Our blowout preventers are manufactured in accordance with API Specification 16A, Third Edition and NACE MR0175 per API Specification 16A, Temperature T20. They meet the applicable API and NACE requirements for H2S service.



## Ram BOP Sizes and Models

Working Pressure, psi	Bore Size (inches)								
	7-1/16	9	11	13-5/8	16-3/4	18-3/4	20-3/4	21-1/4	26-3/4
15,000									
10,000									
5,000									
3,000									
2,000									

## LWP, LWS, SL/SLX Style Ram BOP Specifications\*

Bore (inches)	7-1/16		9		11			13-5/8			20-3/4	21-1/4
<b>Working Pressure (psi)</b>	5,000	10,000	3,000	5,000	3,000	5,000	10,000	3,000	5,000	10,000	3,000	2,000
<b>Length (inches)</b>	58-1/4	79	60	79-1/8	72-5/8	89-1/4	122-3/4	130-1/4	130-1/4	128-3/4	127-1/2	127-1/2
<b>Width (inches)</b>	21-1/2	30	21-1/2	23-1/16	25-15/16	28-3/4	38-9/16	40-3/4	40-3/4	43-1/16	41-1/4	40-7/8
<b>Height (inches), Single, Stud x Stud</b>	15	22-7/8	11-1/8	14-1/2	14-1/2	19-1/2	23-1/2	17-1/4	17-1/4	28	23-1/8	23-1/8
<b>Height (inches), Double, Stud x Stud</b>	26-3/4	36-5/8	22	29-1/2	29-3/8	33	40-7/8	34	34	46	49-1/4	44-7/16
<b>Weight (lbs), Single, Stud x Stud</b>	1,385	5,550	1,170	2,870	2,116	4,150	11,100	8,400	8,800	13,200	7,448	7,285
<b>Weight (lbs), Double, Stud x Stud</b>	2,504	9,900	2,200	5,750	4,096	7,725	20,560	15,350	15,620	23,400	14,615	14,455
<b>Gallons to Open</b>	1.18	2.34	0.68	2.27	1.45	2.62	7.0	4.46	4.46	10.52	4.46	4.46
<b>Gallons to Close</b>	1.45	2.72	0.77	2.58	1.74	2.98	9.45	5.44	5.44	10.58	5.07	5.07
<b>Closing Ratio</b>	5.45:1	7.11:1	4.5:1	5.57:1	5.45:1	5.57:1	7.11:1	5.54:1	5.54:1	7.11:1	5.57:1	5.57:1

\*This is only a partial listing of our ram blowout preventers. Data in this table are for reference only.

## Type U Style Ram BOP Specifications\*

Bore (inches)	7-1/16		11				13-5/8				20-3/4	21-1/4
Working Pressure (psi)	5,000	10,000	3,000	5,000	10,000	15,000	3,000	5,000	10,000	15,000	3,000	2,000
Length (inches)	74	74	95.25	96.25	96.25	124	112.13	112.13	114.13	139.00	143.69	143.69
Width (inches)	20.25	20.63	25.13	25.13	25.75	32	29.25	29.25	30.25	39.50	39.52	39.52
Height (inches), Single, Flange x Flange	27.50	30.56	29.06	34.31	35.69	44.81	31.31	33.81	41.69	53.69	40.56	37.9
Height (inches), Double, Flange x Flange	44.19	48.63	49.25	54.50	55.88	69.75	53.38	55.88	66.63	81.75	66.13	62.75
Weight (lbs), Single, Flange x Flange	2,800	3,550	5,300	5,600	6,400	10,300	7,200	7,700	10,300	23,700	13,650	13,250
Weight (lbs), Double, Flange x Flange	5,200	6,400	9,900	10,200	11,300	18,400	14,300	14,800	18,400	43,250	25,550	25,150
Locking Screw Turns (Each End)	18	18	27	27	27	32	32	32	32	45	46	46
Gallons to Open	1.3	1.3	3.4	3.4	3.4	5.7	5.5	5.5	5.5	10.4	8.1	9.0
Gallons to Close	1.3	1.3	3.5	3.5	3.5	5.8	5.8	5.8	5.8	10.6	8.7	8.7
Closing Ratio	6.9:1	6.9:1	7.3:1	7.3:1	7.3:1	9.8:1	7.0:1	7.0:1	7.0:1	10.6:1	7.0:1	7.0:1

\*This is only a partial listing of our ram blowout preventers. Data in this table are for reference only.

## Diverters

We supply 29-1/2", 500 psi diverters.



## BOP Control Systems (API-16D)

We supply a wide range of BOP closing units; the number of control object is from 1 to 14.



# Choke Manifolds (API-16C)



Model	Working Pressure	Inlet	Outlet	Valve Control
CM3	3,000 psi	3-1 / 8 " - 3,000 psi	3-1 / 8 " - 3,000 psi	Manual and Hydraulic
CM5	5,000 psi	3-1 / 8 " - 5,000 psi	3-1 / 8 " - 3,000 psi	Manual and Hydraulic
CM10	10,000 psi	3-1 / 16 " - 10,000 psi	3-1 / 8 " - 5,000 psi	Manual and Hydraulic
CM15	15,000 psi	3-1 / 16 " - 15,000 psi	3-1 / 16 " - 10,000 psi	Manual and Hydraulic

**Notes:**

Working Temperature: -20 - 250 °F

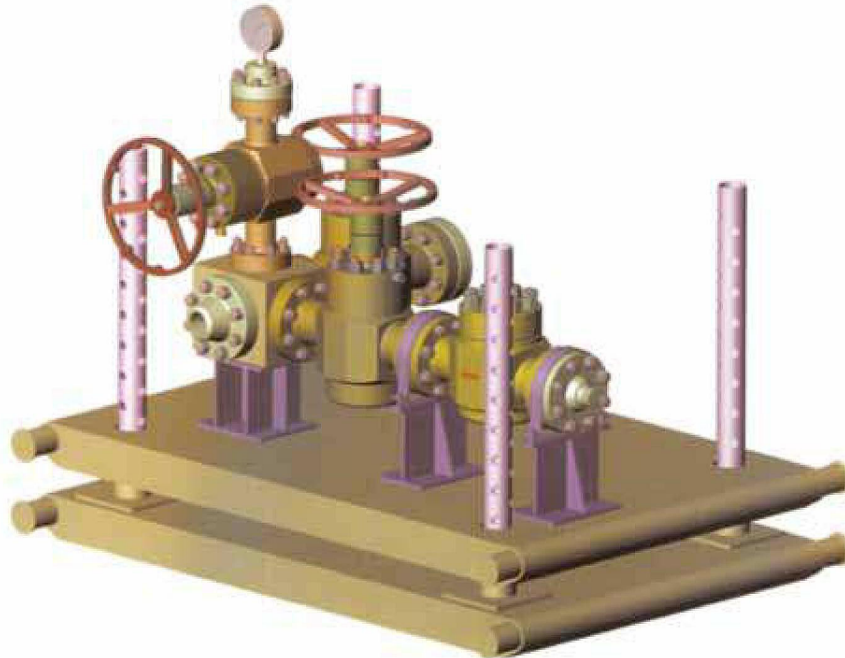
Material Class: AA BB CC DD EE FF

Working Medium: Mud, Petroleum, Natural Gas.

Specification Level: PSL1 - PSL4

Performance Level: PR1 - PR2

# Kill Manifolds (API-16C)



Model	Working Pressure	Inlet		Outlet	
KM3	3,000psi	2-9 / 16 " - 3,000 psi	2-1 / 8 " - 3,000 psi	2-9 / 16 " - 3,000 psi	2-1 / 8 " - 3,000 psi
KM5	5,000psi	2-9 / 16 " - 5,000 psi	3-1 / 8 " - 5,000 psi	2-9 / 16 " - 5,000 psi	3-1 / 8 " - 5,000 psi
KM10	10,000psi	2-9 / 16 " - 10,000 psi	3-1 / 16 " - 10,000 psi	2-9 / 16 " - 10,000 psi	3-1 / 16 " - 10,000 psi
KM15	15,000psi	2-9 / 16 " - 15,000 psi	3-1 / 16 " - 15,000 psi	2-9 / 16 " - 15,000 psi	3-1 / 16 " - 15,000 psi

**Notes:**

Working Temperature: -20 - 250 °F  
 Material Class: AA BB CC DD EE FF  
 Working Medium: Mud, Petroleum, Natural Gas

Specification Level: PSL1 - PSL4  
 Performance Level: PR1 - PR2