

## GK Annular Blowout Preventer

### Applications & Benefits

The GK annular blowout preventers field-tested and proven design has provided world class dependability and quality in surface applications.

The GK provides quick, positive closing action with simplified controls to keep drilling fluids in the hole if a blowout threatens. The packing unit permits closure on the drill pipe, Kelly, tool joints or tubing and wireline as well as the open hole.

- Easy precharge and maintenance.
- Outstanding durability with standard hydrogenated nitrile elastomer
- At a glance precharge and bladder verification with sight glass option
- Reduced downtime with field-replaceable diaphragms world Annular BOPs are a critical component of onshore and offshore drilling activities, providing a pressure barrier by sealing around tubular goods like drill pipe during drilling operations.



### The GE Oil & Gas GK Advantage

The packing unit for the GK annular BOP can hold full-rated working pressure and will close on an open hole. Before shipment, each packing unit is factory tested in a BOP – to 50% of working pressure on open hole and 1000% on pipe. The GK provides longer life when using genuine HydriL Pressure Control packing Units, as shown in repeat testing.

When the GK closes, the piston moves up, driving the elastomer and inserts inward where they quickly reach a fixed position and form a steel ring that prevents the rubber from moving upward under wellbore pressure. After the ring is formed, feed-able elastomer continues to flow inward round the inserts to create a positive seal on the drill string or open hole. Because the elastomer is primarily in compression, it resists tears, cuts and abrasions.

### Key Features

The GK makes maintenance easy and lengthens the time between packing unit charges and shop repairs. The key to these benefits is a simple design that includes;

- A single packing unit that closes on any size pipe or open hole and handles stripping.
- Only two moving parts the piston and packing unit, for less wear and tear and maintenance
- An optical latched head for fast, easy access to the packing unit and wear seals; the majority of GK annulars have a screwed head design.
- A bolted-in inner sleeve that is field replaceable
- A replacement wear plate that eliminates metal-to-metal contact between the packing unit inserts and the BOP head-extending time between major overhaul and repair.
- A long piston design for complete balance and more reliable operation as well as ease of assemble
- Engineered elastomer compounds which are carefully developed designed, manufactured and tested by GE Oil & Gas Chemists.

**Engineering Data**

Bore (Inches)		7.0625	7.0625	7.0625	7.0625	11.000	11.000	11.000	
Working Pressure (Psi)		3,000	5,000	10,000	15,000	3,000	5,000	5,000	
Head Type		Screwed	Screwed	Screwed	Screwed	Screwed	Screwed	Latched	
Hydraulic Operating Pressure		1,500	1,500	1,500	1,500	1,500	1,500	1,500	
Gal. to close (U.S. gal.)		2.85	3.86	9.42	11.2	7.43	9.81	9.81	
Gal to open (U.S. gal.)		2.24	3.30	7.08	7.50	5.54	7.98	7.98	
Stud to Flange Heights (inches)	Flanged Bottom	Rated	32.00	36.88	48.13	54.13	39.75	47.81	48.25
		5 M		36.88				47.81	48.25
		10 M			48.13			48.56	49.00
		15 M			48.13	54.13			
Stud to Flange Weight (lbs)	Flanged Bottom	Rated	2,715	4,000	12,200	14,250		8,200	
		5 M		4,000				8,200	
		10 M			12,200				
		15 M				14,250			
Clearance Diameter (Inches)		32.25	35.75	49.50	61.00	40.00	44.25	44.25	

Bore (Inches)		11.000	11.000	13.625	13.625	13.625	13.625	13.625	
Working Pressure (Psi)		10,000	10,000	3,000	3,000	5,000	5,000	10,000	
Head Type		Screwed	Latched	Screwed	Latched	Screwed	Latched	Latched	
Hydraulic Operating Pressure		1,500	1,500	1,500	1,500	1,500	1,500	1,500	
Gal. to close (U.S. gal.)		25.1	25.1	11.36	11.36	17.98	17.98	37.18	
Gal to open (U.S. gal.)		18.97	18.97	8.94	8.94	14.16	14.16	12.59	
Stud to Flange Heights (inches)	Flanged Bottom	Rated	63.50	63.38	45.25	45.25	54.13	54.50	71.31
		5 M					54.13	54.50	
		10 M	63.50	63.38			56.18	59.44	71.31
		15 M	65.81						
Stud to Flange Weight (lbs)	Flanged Bottom	Rated	26,140		8,784		13,800	13,250	
		5 M					13,800	13,250	
		10 M	26,140				14,500	13,250	
		15 M							
Clearance Diameter (Inches)		61.50	60.75	47.50	47.50	52.25	52.25	68.13	