

Hydril Pressure Control GK® Annular Blowout Preventer

For lower maintenance and more
uptime in surface applications

Pressure Control Equipment: Blowout Preventers

Applications & Benefits

The Hydril Pressure Control GK® annular blowout preventer's field-tested and proven design has provided world-class dependability and quality in surface applications for over 50 years.

We test every GK's operating chambers to full working pressure to ensure strength, reliability and the ability to over-pressurize the chambers in emergencies. The GK provides quick, positive closing action with simplified controls to keep drilling fluids in the hole when a blowout threatens. The packing unit permits closure on drill pipe, kelly, tool joints or tubing, and wireline as well as the open hole.

- Easy precharge and maintainance – charging assemblies are included free with every purchase
- Outstanding durability with standard hydrogenated nitrile elastomer
- At-a-glance precharge and bladder verification with sight glass option
- Reduced downtime with field-replaceable diaphragms

Key Features

The GK makes maintenance easy and lengthens the time between packing unit changes 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 maintenance
- An optional 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 eliminates the need for weld repair and is field-replaceable
- A replaceable 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 assembly
- Engineered elastomer compounds which are carefully developed, designed, manufactured and tested by GE Oil & Gas chemists



The Hydril Pressure Control 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 100% on pipe. The GK provides longer life when using genuine Hydril Pressure Control packing units, as shown in repeated 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, feedable elastomer continues to flow inward around 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.

Engineering Data

Bore (inches)			7.0625	7.0625	7.0625	7.0625	7.0625	9.00	9.00	9.00	11.00	11.00	
Working Pressure (psi)			3,000	5,000	10,000	15,000	20,000	3,000	5,000	10,000	3,000	5,000	
Head Type			Screwed	Screwed	Screwed	Screwed	Screwed	Screwed	Screwed	Screwed	Screwed	Screwed	
Hydraulic Operating Pressure (psi)			1,500	1,500	1,500	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	10.9	4.33	6.84	15.9	7.43	9.81	
Gal. to Open (U.S. gal.)			2.24	3.3	7.08	7.5	7.2	3.41	5.8	11.95	5.54	7.98	
Stud to Flange Height (inches)	Flanged Bottom	Rated	32.00	36.88	48.13	54.13	59.00	37.88	41.75	55.75	39.75	47.81	
		5 m	-	36.88	-	-	-	-	-	41.75	-	-	47.81
		10 m	-	-	48.13	-	-	-	-	-	55.75	-	48.56
		15 m	-	-	48.75	54.13	-	-	-	-	-	-	-
Stud to Flange Weight (pounds)	Flanged Bottom	Rated	2,715	4,000	12,200	14,250	23,000	3,500	6,000	18,540	5,500	8,200	
		5 m	-	4,000	-	-	-	-	6,000	-	-	-	8,200
		10 m	-	-	12,200	-	-	-	-	-	18,540	-	-
		15 m	-	-	-	14,250	-	-	-	-	-	-	-
Clearance Diameter (inches)			32.25	35.75	49.50	61.00	58.00	34.50	41.00	56.75	40.00	44.25	

Bore (inches)			11.00	11.00	11.00	13.625	13.625	13.625	13.625	13.625	16.75	16.75
Working Pressure (psi)			5,000	10,000	10,000	3,000	3,000	5,000	5,000	10,000	5,000	5,000
Head Type			Latched	Screwed	Latched	Screwed	Latched	Screwed	Latched	Latched	Screwed	Latched
Hydraulic Operating Pressure (psi)			1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Gal. to Close (U.S. gal.)			9.81	25.1	25.1	11.36	11.36	17.98	17.98	37.18	28.7	28.7
Gal. to Open (U.S. gal.)			7.98	18.97	18.97	8.94	8.94	14.16	14.16	12.59	19.93	19.93
Stud to Flange Height (inches)	Flanged Bottom	Rated	48.25	63.50	63.38	45.25	45.25	54.13	54.50	71.31	61.25	61.30
		5 m	48.25	-	-	-	-	54.13	54.50	-	61.25	61.30
		10 m	49.00	63.50	63.38	-	-	56.18	59.44	71.31	-	-
		15 m	-	65.81	-	-	-	-	-	-	-	-
Stud to Flange Weight (pounds)	Flanged Bottom	Rated	-	26,140	-	8,784	-	13,800	13,250	-	20,835	21,230
		5 m	-	-	-	-	-	13,800	13,250	-	20,835	21,230
		10 m	-	26,140	-	-	-	14,500	13,900	-	-	-
		15 m	-	-	-	-	-	-	-	-	-	-
Clearance Diameter (inches)			44.25	61.50	60.75	47.50	47.50	52.25	52.25	68.13	59.50	59.50

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GE imagination at work