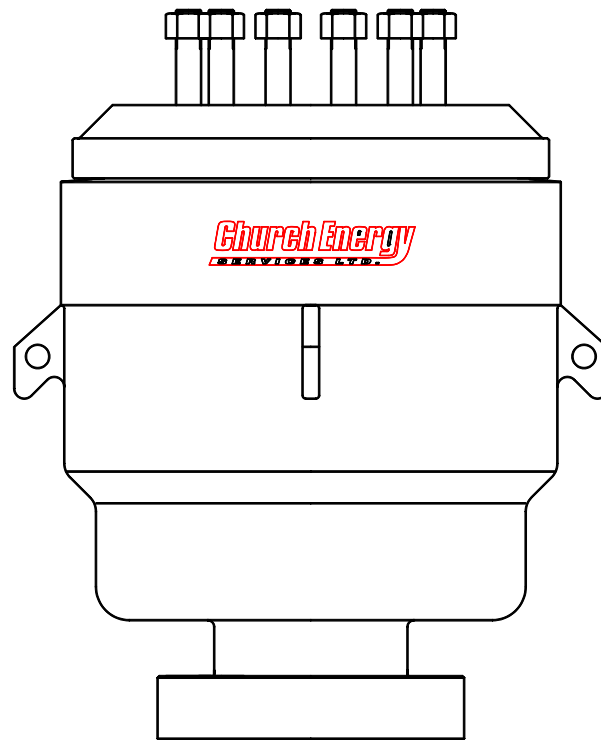


# *Church Energy*

**SERVICES LTD.**

## TYPE 51 (GK) ANNULAR BLOWOUT PREVENTER



2810 WASHINGTON DR. \* HOUSTON, TEXAS \* 77038

# CHURCH ENERGY TYPE 51(GK) ANNULAR BLOWOUT PREVENTER

The Type 51 GK Annular Blowout Preventer is designed for safe well pressure control during drilling and workover operations. The simple design has been proven and accepted for reliable operation in all oil and gas areas in the world. Four main components: body, piston, head, and packing element allow for easy maintenance and reliability. The packing element can close on all pipe, casing, wireline, coiled tubing, and other objects to its full working pressure. Stripping of pipe, tubing, and wireline through the packing element can also be accomplished at lower pressures. The 51 Blowout Preventer can also perform open hole closure per the requirements of ISO 13533 (16A).

The normal configuration of the 51 Blowout Preventer is of a flanged bottom (or clamp hub) connection and a studded top flange connection. Hydraulic operation is performed by connection to open and close (NPT) ports located on the body, which are connected to the control system. A tapered, steel reinforced rubber-packing element is forced inward by an upward movement of the piston. Steel inserts prevent extrusion of the rubber and feed inward to close on any pipe or tubular in the well bore. A replaceable wear plate underneath the Head limits wear from the inserts as they move radially inward during operation.

Replacement of the packing element is performed by unscrewing the head and lifting of the element out of the piston bowl. A new element is then lowered into the piston bowl. Latched heads are also available.

All materials used in the construction of the Type 51 Annular Blowout Preventer are rated by NACE MR-0175 and ISO 13533 for use in hydrogen sulfide environments.

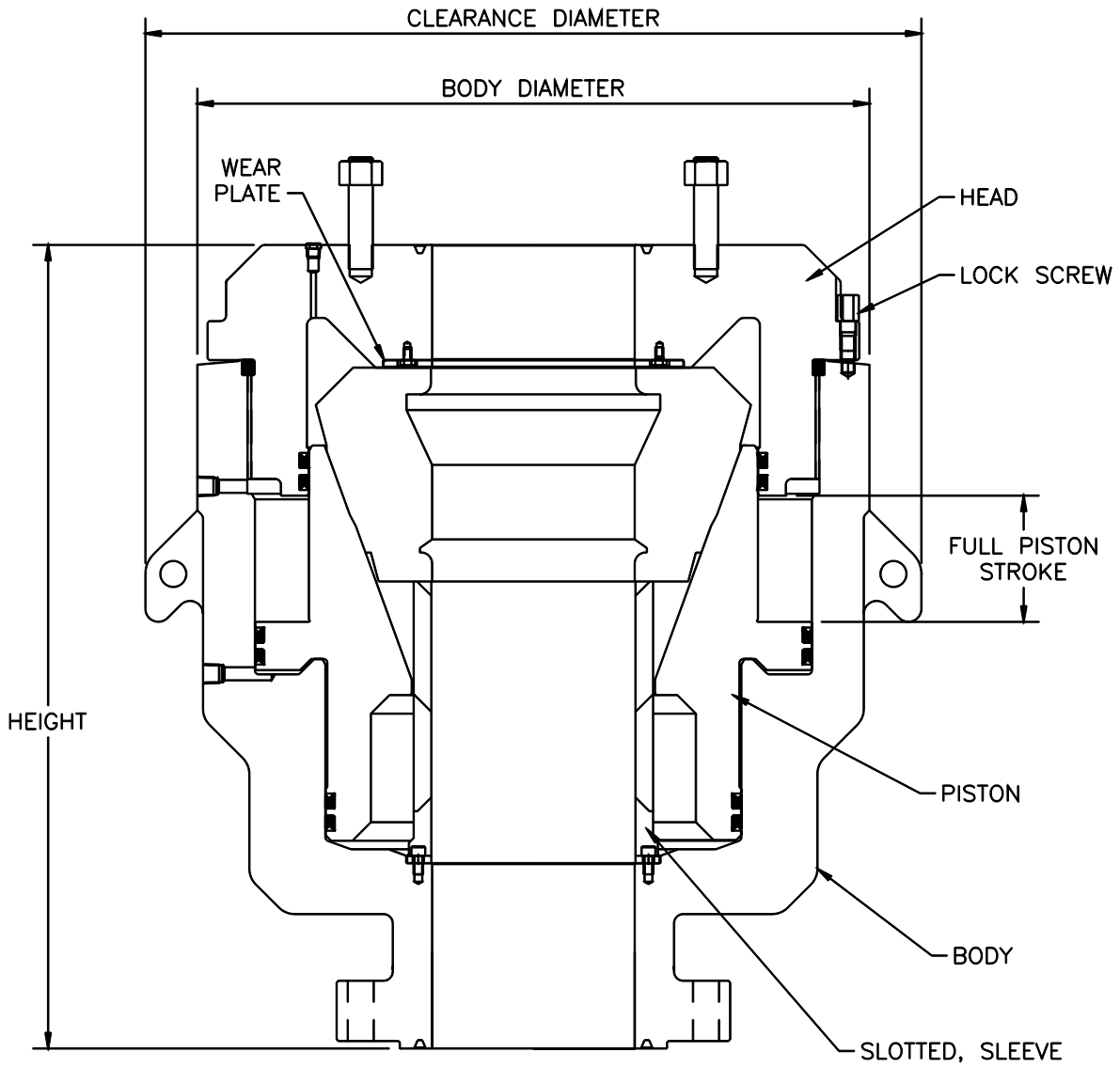
## **Special features of the Type 51 GK Annular Blowout Preventer:**

- Designed and manufactured to ISO 13533 and API Specification 16A for Drill Through Equipment
- Available in all standard bore and pressure ratings
- Special rubber materials available for non standard environments
- Standard operation pressure of 1500 psi (10,34 Mpa)
- Forged materials rated for H<sub>2</sub>S service

## TYPE 51 ANNULAR BLOWOUT PREVENTER ENGINEERING DATA

BORE SIZE		7-1/16	7-1/16	7-1/16	11	11	11
WORKING PRESSURE		3,000	5,000	10,000	3,000	5,000	10,000
HEAD TYPE		SCREWED	SCREWED	SCREWED	SCREWED	SCREWED	SCREWED
OPERATING CHAMBER VOLUME (Gal) (For full position choke)	CLOSING	2.85	3.86	9.42	7.43	9.81	25.10
	OPENING	2.24	3.30	7.08	5.54	7.98	18.97
FULL PISTON STROKE (in)		4.13	4.50	5.50	6.13	7.13	8.00
BODY DIAMETER (in)		26.00	29.25	43.75	33.75	37.50	56.50
CLEARANCE DIAMETER (in)		32.25	35.75	49.50	40.00	44.25	61.50
HEIGHT (in)	FLANGED BOTTOM	32.00	35.88	48.13	39.75	47.81	63.50
	STUDDED BOTTOM	27.75	30.75	*	34.38	39.63	55.00
WEIGHT (lb) approx.	FLANGED BOTTOM	2,715	4,000	12,200	5,500	8,200	26,140
	STUDDED BOTTOM	2,585	3,785	*	5,140	7,750	25,460
STANDARD RING GROOVE	FLANGED	R45	R46	BX156	R53	R54	BX158
	STUDDED	R45	R46		R53	R54	BX158

BORE SIZE		11	13-5/8	13-5/8	13-5/8	13-5/8	16-3/4
WORKING PRESSURE		10,000	3,000	5,000	5,000	10,000	5,000
HEAD TYPE		LATCHED	SCREWED	SCREWED	LATCHED	SCREWED	LATCHED
OPERATING CHAMBER VOLUME (Gal) (For full position choke)	CLOSING	25.10	11.36	17.98	17.98	37.18	28.70
	OPENING	18.97	8.94	14.16	14.16	26.50	19.93
FULL PISTON STROKE (in)		8.00	7.13	8.50	8.50	10.50	10.50
BODY DIAMETER (in)		58.00	40.50	45.50	47.75	61.00	54.50
CLEARANCE DIAMETER (in)		60.75	47.50	52.25	52.25	68.13	59.50
HEIGHT (in)	FLANGED BOTTOM	63.38	45.25	54.13	54.50	71.38	61.30
	STUDDED BOTTOM	54.88	39.38	46.50	*	60.63	53.42
WEIGHT (lb) approx.	FLANGED BOTTOM	*	8,784	13,800	13,250	33,525	21,230
	STUDDED BOTTOM	*	8,522	13,100	*	32,850	20,400
STANDARD RING GROOVE	FLANGED	BX158	R57	BX160	BX160	BX159	BX162
	STUDDED	BX158	R57	BX160	BX160	BX159	



**TYPE 51 ANNULAR  
BLOWOUT PREVENTER**