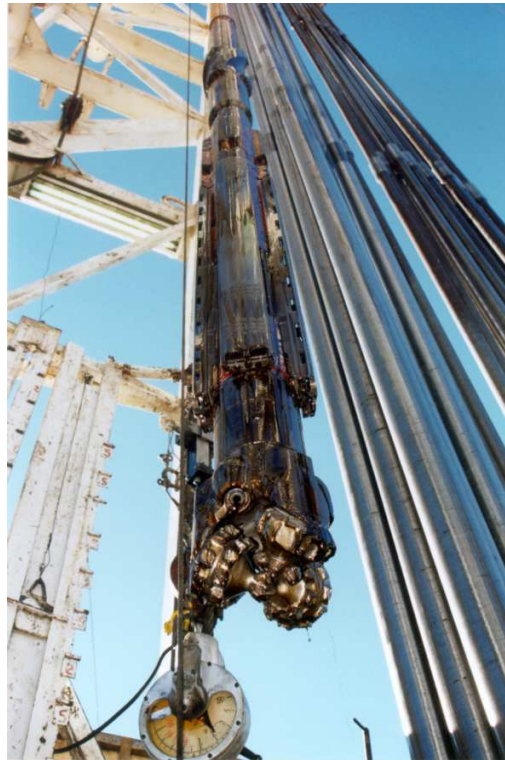


# Vertical Rotary Steerable System

## ZBE - New Generation -



ZBE Operational Specifications 2010									
	ZBE 2000		ZBE 3000		ZBE 4000		ZBE 5000		
Hole size	6 in. to 6 3/4 in.		8 1/2 in. to 9 7/8 in.		12 1/4 in. to 13 7/8 in.		14 3/4 in. to 17 1/2 in.		
Overall length	6.34 ft	(1,93 m)	8.10 ft	(2,47 m)	10.30 ft	(3,15 m)	11.00 ft	(3,35 m)	
Max. operating torque	8,115 ft-lbf	(11 kNm)	11,070 ft-lbf	(15 kNm)	22,140 ft-lbf	(30.000 Nm)	22,140 ft-lbf	(30.000 Nm)	
Max. WOB	15,750 lbf	(70.000 N)	44,962 lbf	(200 kN)	56,250 lbf	(250.000 N)	90,000 lbf	(400.000 N)	
RPM	max. 250		max. 250		max. 200		max. 200		
Maximum Flow Rate	291 GPM	1.100 l/min	450 GPM	1.700 l/min	650 GPM	2.500 l/min	1,100 GPM	4.160 l/min	
Max. temperature	257°F	(125°C )	257°F	(125°C)	257°F	(125°C)	257°F	(125°C)	
Max. hydrostatic pressure	8,550 psi	(600 bar)	12,000 psi	(830 bar)	12,000 psi	(830 bar)	8,550 psi	(600 bar)	
Mud sand content	1% (by volume)		1% (by volume)		1% (by volume)		1% (by volume)		
<b>Rotary Connections</b>									
Collar upper connection	NC 38 PIN		NC 46 PIN		NC 56 PIN		NC 56 PIN		
Bit box	3 1/2 Reg.		4 1/2 Reg.		6 5/8 Reg.		7 5/8 Reg.		