





KI-1500 KUDU internal hydrodynamic brake drivehead

Controls backspin using an automatic hydrodynamic brake

-  Operates at up to 600 rpm
-  Supports ambient operating range of -40 to 55 degC [-40 to 131 degF]
-  Manages rod string loads up to 13.7 t [30,200 lbm]
-  Handles up to 100 hp [75 kW]

How it improves performance and safety

The KI-1500 contains no wearing parts and reduces noise below 70 dB. A self-contained, automatic hydrodynamic brake controls backspin. No mechanical friction occurs in the braking unit.

How it works

The system operates by either a basic control panel or multifunction KUDU Pump Manager* well optimization unit. The control panel can be outfitted to display the input current from an independent ampere meter and the speed by revolution meter.

Additional information

The KI-1500 is available with low- and high-capacity thrust bearings and IEC or National Electrical Manufacturers Association (NEMA) baseplates. The system uses a standard stuffing box and is KUDU Oryx* rotary seal capable with the ability to handle up to a 31.5-in driven sheave cable.



KI-1500 drivehead with hydrodynamic brake.

KI-1500 Technical Specifications

Rated forward operating speed	50–600 rpm
Horsepower range	45- to 75-kW IEC [60- to 100-hp NEMA] 4- or 6-pole motor, 50 or 60 Hz
Maximum driven sheave size	80-cm [31.5-in] diameter
Rated axial load (L10 bearing life: 25,000 h at 500 rpm, continuous)	L10: 13.7 t (C90 = 25.9 t), ISO Ca = 98 t, Optional L10 = 22.8 t
Maximum operating torque	2,040 N.m [1,500 lbf.ft]
Brake	500-rpm maximum backspin speed
Main shaft type	Hollow
Input shaft OD	Vertical, 3 1/8 in
Polished rod	31.75, 38.1 mm [1 1/4, 1 1/2 in]
Wellhead and drivehead connection types	3 1/8-in 3,000-psi, 2,000-psi flange
	4 1/16-in 3,000-psi, 2,000-psi flange
	5 1/8-in 3,000-psi, 2,000-psi flange
Prime mover type	Electric
Electric motor mount	IEC 225—315
	NEMA 364—444
Gear reduction ratio	na [†]
Ambient operating range	-40 to 55 degC [-40 to 131 degF]
Brake reservoir capacity	36- to 38-L [9.5- to 10-galUS] transmission fluid Super ATF
Bearing reservoir capacity	4-L [1-galUS] 0W30 oil

[†] na = not applicable