MG-2000-G Electric Gear-Reduction Drive

Provides a reliable, economic solution for a variety of PCP applications, including heavy to light oil, coalbed methane, and water source wells

Applications

• PCP applications driven by electric or hydraulic motors

Features and Benefits

- The small footprint is especially useful for height-restricted areas and aesthetically sensitive environments.
- Standard features include a three-point lifting system for ease of handling.
- The centrifugal braking system provides a resistive torque that is proportional to speed, for a safe release of the backspin energy. The brake shoes automatically engage and retract based on speed, which results in a quick, complete, and controlled fluid dump, enabling production to resume quickly.
- The braking system is enclosed and immersed in synthetic oil to manage a wide range in operating temperatures and to lubricate all moving parts for a long service life.

Tool Description

The Weatherford MG-2000-G drive is an electric, gear-driven drive with a torque capacity of 2,000 lbf-ft. It is compatible with Weatherford stuffing boxes and various wellhead connections.

Specifications

Drive type	Gear-reduction drive		
Prime mover type	Electric or hydraulic (with optional adapter)		
Braking mechanism	Centrifugal braking system		
Bearing configuration	Standard	Optional	
Dynamic bearing capacity	220,313 lbf (980,000 N)	307,988 lbf (1,370,000 N)	
Bearing Ca90 capacity	57,156 lbf (25,926 kgf)	79,847 lbf (36,218 kgf)	
Torsional rating	2,000 lbf-ft (2,712 N•m)		
Maximum polished-rod speed	350 rpm		
Polished rod (PR) size	1-1/4 and 1-1/2 in.		
Maximum axial load	15 tonne (13.5 tonne for ATEX)		
Main shaft type	Hollow		
Gear-reduction ratio	5:1 or 7.5:1		



The MG-2000-G electric gear-reduction drive is built with a unique centrifugal wet-braking system that provides reliable, controlled backspin protection to enhance operational safety.

Options

- Integral, booth- and yokemounted stuffing boxes*
- Conventional, I-PAK[®], and DuraSeal[®] stuffing box types
- CE/ATEX-certified model available*
- ISO 15163-2 model available
- Polished-rod speed indicator
- Polished-rod lock-out tool
- Support arms
- * Some conditions may apply



MG-2000-G Electric Gear-Reduction Drive

Specifications

PR drive clamp type	8 bolt				
Available stuffing box (SB) mounting	15T tapered booth Bolt-on SB		Integral		
Available stuffing box type	Conventional	I-PAK [®]	DuraSeal®	DuraSeal	
Available stuffing box wellhead connection API compatible	2-7/8 EUE pin				
	3-1/8 2M or 3M flange 3-1/8		M flange		
	4-1/16 2M or 3M flange				
	5-1/8 2M or 3M flange				
Height: top of PR guard	69 in. (1,758 mm)			54 in. (1,56 mm)	
Height: top of PR clamp	52 in. (1,327 mm)			36 in. (925 mm)	
Width	24 in. (618 mm)				
Length	37 in. (936 mm)				
Approximate weight ¹	1,060 lb (481 kg)				
Motor mounting	Single				
Maximum motor frame size	404T (IEC 250S/M)				
Maximum motor weight	1,000 lb (454 kg)				
Maximum mountable motor	100 hp 1,800 rpm				
	75 hp 1,200 rpm				
Input shaft diameter/orientation	1.968 in. (50 mm)/vertical				
Maximum slant angle from vertical	30° (0° for ATEX)				
Ambient operating	-40 to 122°F (-40 to 50°C)				
temperature range	-4 to 104°F (-20 to 40°C) for ATEX				
Minimum start-up temperature	-4°F (-20°C)				
Operating temperature range	-4 to 248°F (-20 to 120°C)				
Noise level at 1-m distance ²	78 dB				

¹Not including motor

² Varies by motor and operating conditions



* I-PAK is a registered trademark of Weatherford in the US and Canada. DuraSeal is a registered trademark of Weatherford in the US.

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