PROGRESSING CAVITY PUMPING SYSTEMS TECH SPECS

MG-1000-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 the wide range of operating temperatures while lubricating all moving parts for a long service life.

Tool Description

The Weatherford MG-1000-G drive is an electric, gear-driven drive with a torque capacity of 1,000 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		
Dynamic bearing capacity	134,885 lbf (600,000 N)		
Bearing Ca90 capacity	34,994 lbf (15,873 kgf)		
Torsional rating	1,000 lbf-ft (1,356 N•m)		
Maximum polished-rod speed	350 rpm		
Polished rod (PR) size	1-1/4 in.		
Maximum axial load	9 tonne		
Main shaft type	Hollow		
Gear-reduction ratio	on ratio 5:1 or 7:5:1		



The MG-1000-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-1000-G Electric Gear-Reduction Drive

Specifications

PR drive clamp type	6 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 3M flange		
	4-1/16 2M or 3M flange				
	5-1/8 2M or 3M flange				
Height: top of PR guard	68 in. (1,724 mm)			52 in. (1,321 mm)	
Height: top of PR clamp	47 in. (1,185 mm)			31 in. (782 mm)	
Width	22 in. (566 mm)				
Length	33 in. (831 mm)				
Approximate weight ¹	805 lb (365 kg)				
Motor mounting	Single				
Maximum motor frame size	326T (IEC 200L)				
Maximum motor weight	725 lb (329 kg)				
Maximum mountable motor	50 hp, 1,800 rpm				
	40 hp, 1,200 rpm				
Input shaft diameter/orientation	1.653 in. (42 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	75 dB				

¹ Not including motor



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² Varies by motor and operating conditions