



Weatherford®

G-Series Direct Progressing Cavity Pumping Driveheads



Drilling



Evaluation



Completion



Production



Intervention

Artificial-lift systems

- Capillary technologies
- Continuous rod
- Electric submersible pumping systems
- Gas lift
- Hydraulic lift
- Plunger lift
- Prime movers
- Progressing cavity pumping
 - Accessories
 - Controllers
 - Downhole pumps
 - Optimization equipment
 - Surface drives
 - Surface equipment
- Reciprocating rod lift
- Sucker rods
- Surface pumping units

The Lift ExpertsSM

Reliable, economic solutions for progressing cavity pumping (PCP) systems.

Weatherford's G-Series direct driveheads serve as reliable, economic solutions for a wide range of PCP applications, including heavy to light oil, coalbed methane, and water-source wells. All driveheads support various types of stuffing boxes and wellhead connections.

A unique feature of our G-Series driveheads is the centrifugal wet-brake system that enables superior safety and protection. The system uses the centrifugal force, created during backspin, in conjunction with cams and springs to engage braking shoes against a stationary housing. The result is an aggressive brake that engages only when the backspin speed surpasses the brake's engagement threshold. When speeds are below the brake's engagement threshold, the brake shoes remain retracted for a quick, controlled and complete fluid dump. The brake itself is immersed in synthetic oil to control temperatures and lubricate moving parts ensuring a longer service life.

G-Series driveheads are built with drive and sheave systems that facilitate broad ranges in speed and torque, enabling more precise adjustments with auxiliary equipment. The motor is installed on an adjustable door, which permits safe and easy modification of belt tension. All drivehead models are compatible with electric motors and can be adapted to support hydraulic motors.

Features

Standard Features

- Polished-rod guard
- Polished-rod clamp
- Booth guard
- ISO 15136-2 compliant

Options

- Integral-, booth- and yoke-mounted stuffing boxes (some conditions may apply)
- Stuffing box types: conventional, I-PAK® box, DuraSeal™ box
- Polished-rod speed indicator
- Polished-rod ejection clamp
- ATEX certification
- Support arms



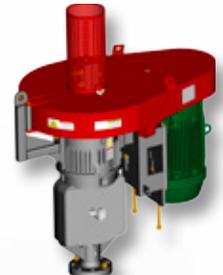
Integral

Booth

Yoke



Nano-G



Micro-GX



Mini-GX



MGX



MGX Dual
MG 250

Our G-Series driveheads leverage several features to enhance PCP performance:

- The small, compact footprint is ideal for height-restricted work areas and for aesthetically sensitive environments
- The stable lifting system enables easy transportation and installation
- The hinged-belt guards permit easier servicing of belts and sheaves
- The centrifugal braking system provides a braking torque proportional to speed, enabling a quick and safe release of backspin energy



Drive Specifications

Ratings		Nano-G/Nano-G EC ^a	Micro-GX	Mini-GX	MGX/MGX EC ^a	MGX/MGX EC Dual ^a	MG 250
Maximum input polished rod torque, ft-lb (N•m)		375 508	750 1,017	1,500 2,034	2,000 2,712		3,750 5,084
Maximum polished-rod speed (rpm)		600					
Standard thrust-bearing rating, Ca90, lbf (kN)		12,190 54	39,076 174		57,156 254		90,983 404
Standard thrust-bearing rating, ISO, lbf (kN)		47,000 209	150,723 670		220,462 980		350,940 1,560
Optional thrust-bearing rating, Ca90, lbf (kN)		26,540 118	—		90,983 404		—
Optional thrust-bearing rating, ISO, lbf (kN)		102,360 455	—		350,940 1,560		—
Maximum motor weight, including sheave, lb (kg)		325 147	675 306	1,500 680		3,000 1,361	
Maximum mountable motor frame ^b		180L IEC (286T NEMA)	200L IEC (326T NEMA)	250M IEC (405T NEMA)		280M IEC (445T NEMA)	
Maximum mountable motor size, single motor		30 HP, 1,800 rpm 20 HP, 1,200 rpm	50 HP, 1,800 rpm 40 HP, 1,200 rpm	100 HP, 1,800 rpm 75 HP, 1,200 rpm		200 HP, 1,800 rpm 125 HP, 1,200 rpm	
Polished rod size, in. (mm)		1-1/4 31.75		1-1/4 or 1-1/2 31.75 or 38.10	1-1/4 or 1-1/2 31.75 or 38.10		1-1/2 38.10
Dimensions and Weight							
Input shaft size, in. (mm)		2.362 60.00			2-3/4 69.85		
Driven sheave, maximum diameter, in. (mm)		19 483	27.5 699		30.0 762		31.5 800
Driver sheave, minimum diameter, in. (mm) ^c			4.4 112			4.9 124	
Driver sheave, maximum diameter, in. (mm) ^d		9.0 229	11.5 292		14.0 356		13.0 330
Minimum center distance, in. (mm) ^e		9.06 + D 230 + D	12.28 + D 312 + D	12 + D 305 + D		17.00 + D 432 + D	
Integral	Height, in. (mm) ^f	36.535 928	41.654 1,058	53 1,346	63 1,600	Not available as integral	
	Weight, lb (kg) ^g	441 200	686 311	1,000 454	1,600 726	Not available as integral	
Booth	Height, in. (mm) ^f	39.843 1,012	48.898 1,242	71 1,803	80 2,032	82 2,083	
	Weight, lb (kg) ^g	467 212	794 360	1,180 535	1,780 807	2,300 1,043	2,350 1,066
Common Specifications							
Maximum sheave ratio		4.3:1 ⁱ		5:1			
Maximum number of belts		4 each. Type 5V 3 each. Type C	6 each. Type 5V 4 each. Type C	6 each. Type 5V 4 each. Type C	9 each. Type 5V 7 each. Type C	12 each. Type 5V 8 each. Type C	
Prime mover		Electric or hydraulic					
Drive style		Bearing box					
Input shaft		Vertical hollow shaft					
Backspin control		Centrifugal wet-brake system					
Wellhead Connection Specifications ^h							
Imperial units		3 1/8-in., 2,000- or 3,000-psi flange with <i>DuraSeal</i> [™] rotating or conventional stuffing boxes; 2 7/8-in. pin with conventional stuffing box		3 1/8-in., 3,000-psi flange with <i>DuraSeal</i> rotating or conventional stuffing boxes; 2 7/8-in. pin with conventional stuffing box		3 1/8-in., 3,000-psi flange	
Metric units		79.4-mm, 138- or 207-bar flange with <i>DuraSeal</i> rotating or conventional stuffing boxes; 73.0-mm pin with conventional stuffing box		79.4-mm, 207-bar flange with <i>DuraSeal</i> rotating or conventional stuffing boxes; 73.0-mm pin with conventional stuffing box		79.4-mm, 207-bar flange	

^a Difference between standard and EC models is the optional thrust-bearing rating.

^b Maximum mountable motor frame based on standard configuration. Optional configurations are available for larger electric motor frame sizes. Contact technical support if larger size is required.

^c Ensure that the top bearing in the motor can handle the additional overhung load that results from using smaller sheaves.

^d Maximum is dependent upon motor size and door position.

^e "D" = distance from the base of the selected motor to its centerline.

^f Height includes drivehead, stuffing box, and polished rod guard.

^g Weight includes drivehead and stuffing box; it does not include prime mover and sheaves.

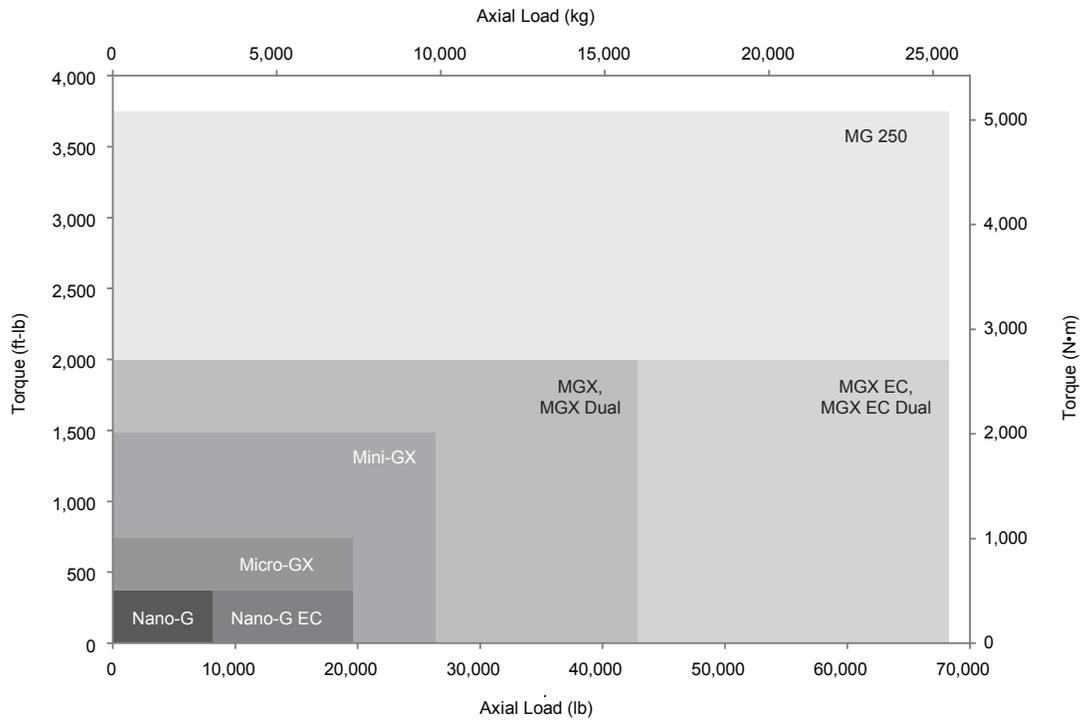
^h Various connection types are available upon request.

ⁱ A 5:1 sheave ratio is available upon a custom request order.



G-Series Direct Progressing Cavity Pumping Driveheads

Selection Guide



Weatherford provides worldwide service and support from more than 900 facilities in approximately 100 countries. To find out more, contact an authorized Weatherford representative, email als.pcp@weatherford.com or visit weatherford.com.



Weatherford®

weatherford.com

© 2011-2012 Weatherford. All rights reserved. 6436.01

Weatherford products and services are subject to the Company's standard terms and conditions, available on request or at weatherford.com. For more information contact an authorized Weatherford representative. Unless noted otherwise, trademarks and service marks herein are the property of Weatherford and may be registered in the United States and/or other countries. Weatherford products named herein may be protected by one or more U.S. and/or foreign patents. For more information, contact patents@weatherford.com. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions set forth in the applicable contract between Weatherford and the client.