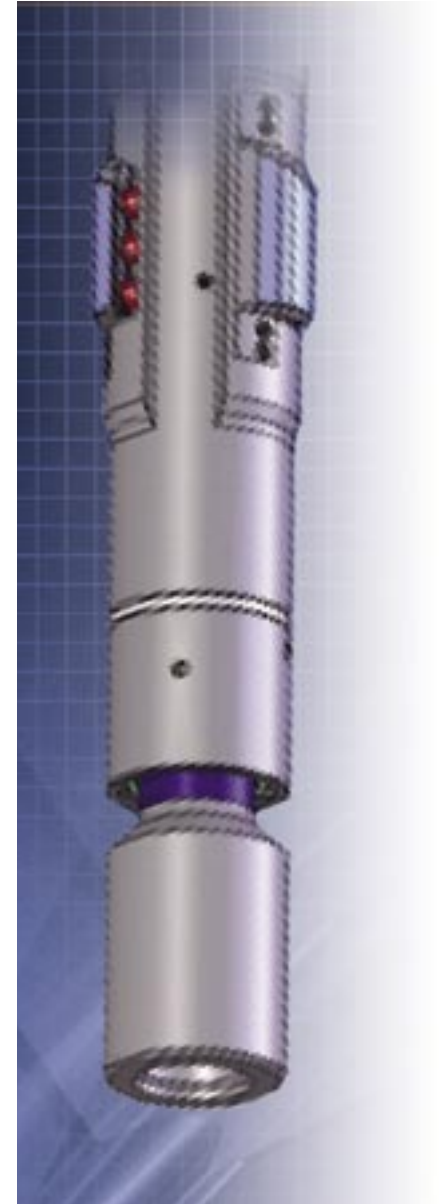
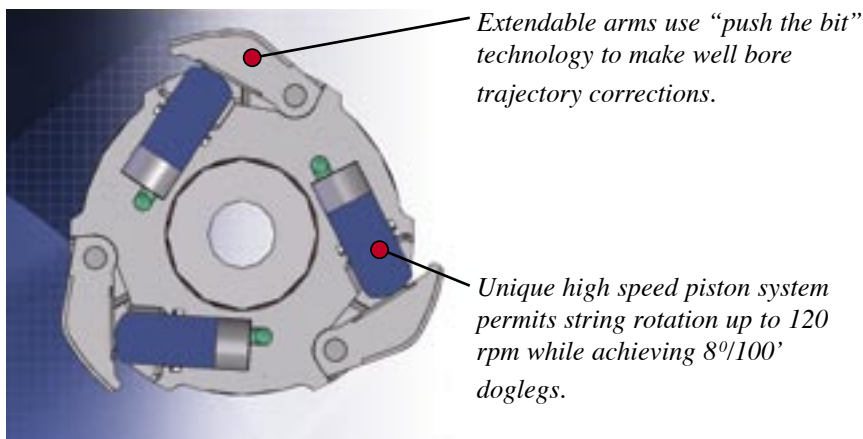


ROTARY STEERABLE MOTOR

BICO Rotary Steerable Motor is the first fully integrated rotary steerable motor. Proprietary downhole software and a unique communications system permits quick response to the dynamic and ever-changing conditions encountered in the drilling process. Extendable arms correct well bore trajectory using “push the bit” technology.

- **Extendable arms** - use “push the bit” technology to make well bore trajectory corrections.
- **Unique high speed piston system** - permits string rotation up to 120 rpm while achieving 8°/100’ doglegs.
- **No sliding** – reduces sticking, enhances cuttings removal
- **No permanent bend** – drills in-gauge hole
- **Combined surface rotation and motor** – ROP's comparable to straight hole motor
- **Closed-loop system** – MWD tool corrects steering commands at each connection
- **Surface-to-downhole communication** – allows driller control for changes in trajectory



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ROTARY STEERABLE MOTOR

Dimensional Data	
Outer Diameter	7 1/8"
Upset Diameter (Blades)	7 5/8"
Stabilizer Diameter	8 7/16"
Length	211" + power section
Nominal Hole Size	8 1/2"
Maximum Hole Size	8 1/2"

Operational Data	
Power Section*	SpiroStar
Flow Range	300-600 GPM
Power Output	up to 500 HP
Nominal Motor Speed	varies by power section
Maximum Steering Capabilities	8°/100'
Maximum Drillstring Rotation	120 RPM

Product Specifications	
Maximum Drillstring Rotation	120 RPM
Steering Technology	Push the Bit
Bit to Blade Center Length	38"

Communication Data	
Downhole	Proprietary 2-way Communications
Surface to Tool	Via MWD

Environmental Data	
Maximum Temperature	150° C
Maximum Pressure	20,000 PSI



* BICO Rotary Steerable Motors can be configured with any SpiroStar or FlexDrill power sections.



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