

DRILLING SERVICES

MAGNUS™

ROTARY STEERABLE SYSTEM

Combining reliable, high-performance drilling with precise directional control



Weatherford®

PUSH YOUR LIMITS

The Magnus™ RSS gives you reliable, accurate, and fast drilling performance.

Today's well geometries and economics demand advanced directional drilling technology that can help you to lower overall costs and drill more hole per day.

Our Magnus rotary steerable system (RSS) uses a push-the-bit design to satisfy your need for speed without sacrificing directional control. With rugged design elements, the RSS fits nearly any scenario—from the everyday to extreme—and excels in high-performance drilling applications.

Unique features—including fully independent pad control and a true-inclination hold—help you to sustain drilling, stay on plan, and reduce well-construction costs. Combining the RSS with our comprehensive Wave™ family of logging-while-drilling (LWD) tools, market-leading HyperLine™ downhole motors, and cutting-edge RipTide® borehole enlargement tools provides you world-class capabilities.



RUGGED DESIGN

LASTING RELIABILITY

HIGH PERFORMANCE DRILLING

COST-EFFECTIVE WELLBORES

PRECISE DIRECTIONAL CONTROL

ON-PLAN EXECUTION

RUGGED DESIGN FOR LASTING RELIABILITY

Reach your target without setbacks. The robust, modular construction of the Magnus™ RSS helps you to drill reliably and maintain trajectory easily.

Reach total depth with a trio of valves

A unique valve design helps you to achieve TD. Because the three valves operate independently from each other, they offer built-in redundancy and enhanced reliability.

Minimize stuck pipe issues

A streamlined design reduces sticking issues. Features such as a fully rotating bias unit, minimal BHA stabilization, and an optimized junk slot area reduce the risk of expensive stuck pipe events.

Resist harsh environments with robust piston seals

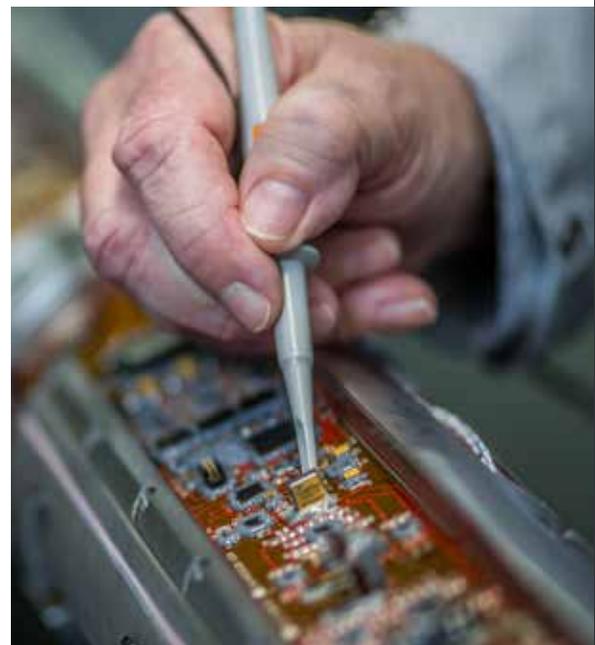
For performance under pressure, the Magnus RSS incorporates non-elastomeric piston seals in the mud-actuated pads. The result is enhanced mechanical integrity in harsh drilling environments and greater overall system reliability.

Maintain operations with local service

A modular design and local support keeps you running. The Magnus RSS is easy to deploy and maintain, even in remote locations. Service is just around the corner with our global network of maintenance and repair facilities.

Make reliable decisions using real-time diagnostics

To stay on top of what happens downhole, the Magnus RSS uses real-time diagnostics. The resulting instantaneous information from the BHA enables you to confirm proper operation, take action ahead of issues, and drill ahead with confidence.





**FULLY INDEPENDENT
PAD CONTROL**



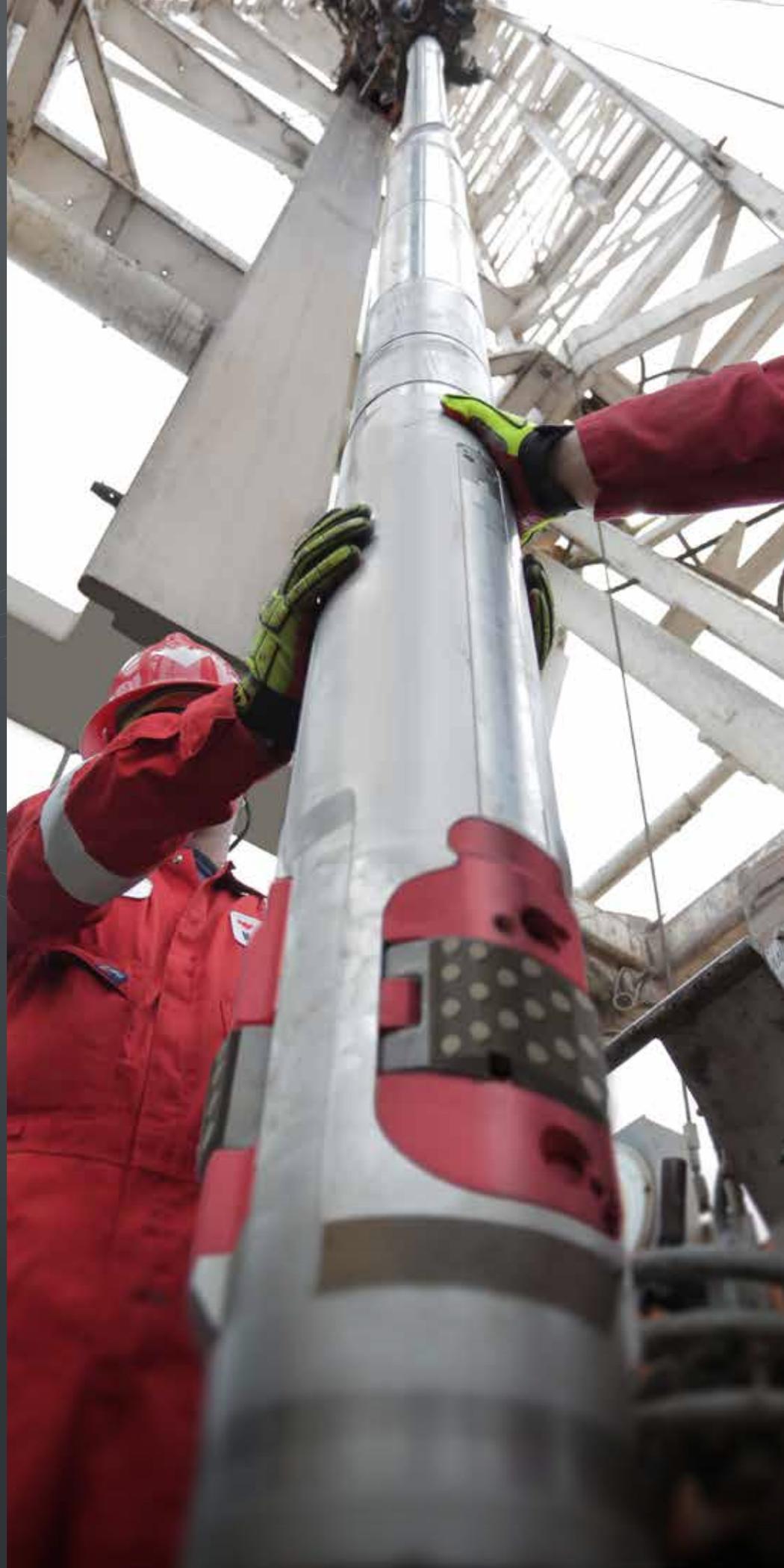
**ON-TARGET
EXECUTION**



**TRUE-INCLINATION
HOLD**

FEATURES

**3 INDEPENDENT
VALVES**
FOR REDUNDANCY AND ENHANCED
DIRECTIONAL CONTROL



PRECISE DIRECTIONAL STEERING FOR STAYING ON PLAN

Remain on course from start to finish. Whether you're drilling verticals, curves, or laterals, our Magnus™ RSS provides precise, proportional adjustments for continuous control.

Control direction with three independent pads

Unique independent pad control helps you to optimize the well trajectory. The three pads actively manage your direction through the entire wellbore and achieve a true-inclination hold in the lateral.

Steer with real-time near-bit data

Every bit of clear, real-time information makes a difference. Taken as little as 6 ft behind the bit, continuous azimuthal gamma ray and inclination measurements enable effective wellbore placement and geosteering changes to stay in the zone.

Maintain direction while drilling with autopilot

Self-regulated adjustments instill confidence in the course. Using an innovative electronic system and autopilot functionality, the Magnus RSS provides closed-loop control for course corrections during drilling.

Take command of downhole communication

The DownLink Commander® bidirectional communication system works without interrupting drilling. This proven system sends control signals to the Magnus RSS and then quickly verifies the information so that steering adjustments immediately take effect.



ACQUIRES DATA
AS CLOSE AS

6 FT
FROM THE BIT

CAPABLE OF

10°
DOGLEG

ACHIEVES UP TO

300 RPM

HIGH-PERFORMANCE DRILLING FOR COST-EFFECTIVE WELLBORES

Make gains in speed and savings with the Magnus™ RSS. Drilling efficiencies can deliver a quality wellbore ahead of time and add value that cascades to casing and completion running.

Speed up with selective pad activation

A proportional control system in the Magnus RSS picks up the pace. The equivalent drilling adjustments minimize tortuosity for a smooth, high-quality wellbore that can increase the efficiency—and reduce the costs—of future well-construction operations.

Build up with a higher dogleg

A high-dogleg capability makes a deep kickoff a matter of course. With a consistent dogleg severity capability of 10° per 100 ft, the RSS enables you to build the curve section, eliminate correction runs, and contact the pay zone sooner.

Verify position with high-speed sampling

An electronic control system confirms the toolface orientation again and again. The system samples data at rapid rates to give you the ability to have full control and optimal performance at high rpms.

Streamline your inventory using a standard bit

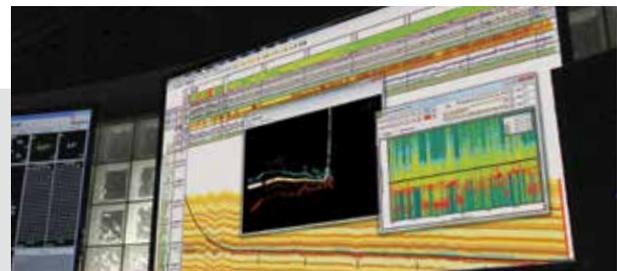
For your convenience, the Magnus RSS works with standard drill bit designs. This compatibility enables using off-the-shelf equipment to avoid lengthy lead times and reduce the need for additional inventory.

COMPLEMENTARY TOOLS FOR TOP-NOTCH RESULTS

The Magnus RSS offers seamless integration with our other best-in-class drilling tools. Together, they shift your drilling capabilities from high gear to overdrive.

Put more power into your drilling performance

Adding a motor can meet your need for bit speed. The Magnus RSS can run with any HyperLine™ performance drilling motor, which enables you to make the optimal choice for greater ROP, lower torque, and reduced stick-slip.



Obtain real-time formation-evaluation data

The Magnus RSS works with our industry-leading Wave™ family of LWD sensors. This compatibility enables accurate reservoir data while drilling from spud to TD, which helps you to characterize the formation, stay on the planned course, and maximize sweet-spot exposure.

Double up on your drilling capabilities

Optionally equipped with radio-frequency identification (RFID) technology, our RipTide® borehole-enlargement tools can run with the Magnus RSS to underream while drilling, which further prepares your wellbore for casing and completion running.



PUSH YOUR LIMITS

The Magnus™ RSS delivers reliable, high-performance drilling with full directional control in nearly any environment or application. To learn how the RSS can help you to push performance to the next level, please contact your Weatherford representative or visit our website.

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