



RED | BARON

TRACKMASTER SELECT

A History of Innovation.
Unrivalled Experience.
Global Presence.

TrackMaster Select*

A History of Innovation.

Since its introduction, by Smith International, Inc., the TrackMaster name has been recognized as the industry standard for wellbore departure applications. From the pioneering one-trip system approach, the unique multi-ramp slide, the advanced mill geometries, and anchoring options, the TrackMaster has built a reputation for reliably delivering a high-quality casing exit across a broad spectrum of customer applications around the world.

In another industry first, the introduction of the proprietary WhipSim* wellbore departure simulation software allowed the predictive modeling of the milling operation, the window geometry, and the simulation of the pass-through capabilities of bottom hole assemblies for completed windows.

Unrivalled Experience.

Best practices, procedures, risk analyses, and proprietary training techniques have all been developed and improved over the years in a wide variety of applications. This, combined with our field, technical, maintenance, and support personnel, offers an unrivalled experience and network of knowledge.

Global Presence.

Comprehensive in-house manufacturing, engineering, and testing resources directly support our worldwide network of field operations. Our field locations include experienced rigsite personnel, technical support engineers, and maintenance and repair specialists that ensure responsive service delivery. Equipment inventories are held locally in each of our field locations and are linked to a worldwide distribution infrastructure.

The TrackMaster Select brings together the system technology options, the best practices developed and the experience we have gained over the years to offer our clients the most comprehensive range of wellbore departure system solutions on the market today.

TrackMaster Select: A History of Innovation, Unrivalled Experience and Global Presence.



Thorough Job Planning is Essential to Success

Job Planning

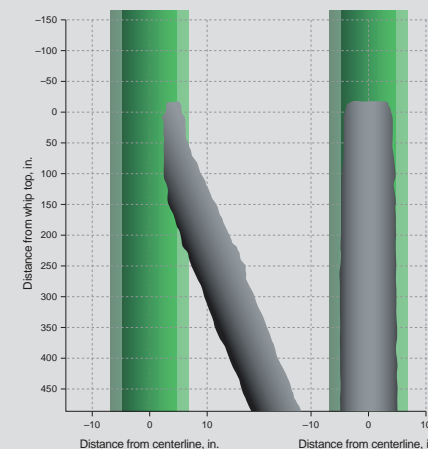
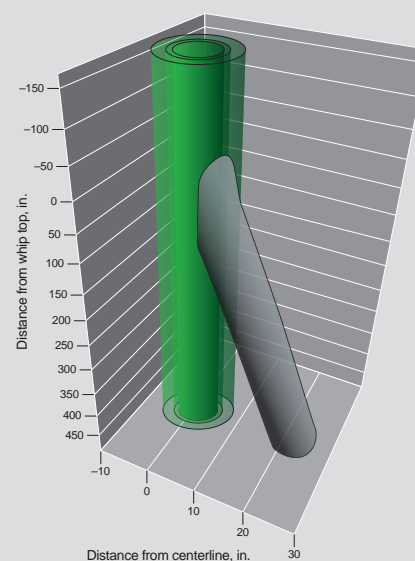
The job planning processes used for the TrackMaster Select system ensures that the configuration options match our customers' requirements, risks are analyzed, and specific rigsite procedures developed. Key elements used in the job planning process include:

- Customer objectives and wellbore data review
- Jobsite safety analysis
- Formation characteristics and rathole requirements
- Operational checklists
- Anchor, mill and slide selection criteria
- WhipSim wellbore departure modeling
- Runner torque, drag and buckling simulation
- Rigsite procedures and parameter optimization

Benefits of WhipSim

The WhipSim wellbore departure simulation is carried out by our technical support personnel, located in our global network of field locations. Its benefits have been demonstrated to be invaluable in a wide variety of applications. The information provided by WhipSim is used to predict:

- The window geometry at the exit
- The size and shape of the wellbore section formed by the whipstock, casing window, and formation
- The rathole trajectory
- The curvature and dogleg severity (DLS) of the bottom hole assembly (BHA) or liner passing through the window. WhipSim calculates the DLS, in addition to the forces and stresses acting on the BHA or liner.



WhipSim* whipstock simulation software examples.



Components

Mills

In the TrackMaster Select system, mills deliver efficient and cost-effective performance in any sidetracking operation. A comprehensive range of mill configurations and cutting structures are available to match the application objectives. The cutting structures offer both tungsten carbide and enhanced PDC cutting elements.

Bi-mill

Tri-mill

Quad-mill

MILLS



Short whipstock



Standard whipstock



Extended whipstock

WHIPSTOCKS



Expandable anchor



Retrievable packer anchor



Permanent packer anchor



Mechanical anchor

ANCHORS

Anchors

Both hydraulic set and mechanical set anchors are available for the TrackMaster Select system. All anchors secure the system in the wellbore and prevents movement. Anchors are available in both retrievable and permanent configuration and with or without an integral packer element.

TrackMaster Select

Not all sidetracks are alike



The TrackMaster Select system has the widest array of configuration options on the market today, each tailored to specific customer requirements. Each configuration option offered is the result of continuous engineering improvements and experience gained over

many years. It is an engineered solution to provide customers with a stronger, faster, and more reliable sidetracking system.

Applications

Three categories define the configuration options for the TrackMaster Select system:

Conventional Sidetracks

- Single casing
- Hard formation
- Extended rathole
- Elongated window

Advanced Sidetracks

- Heavy wall, high strength casing
- Corrosion resistant alloy casing
- Lowside exit
- Dual and triple casing

Specialized Sidetracks

- Custom multi-lateral junctions
- Flow by access configurations



TrackMaster Select System — Configuration Options

Casing size (inches)	4 1/2	5 1/2	7	7 5/8	8 5/8	9 5/8	10 3/4	11 3/4	13 3/8	16	18 5/8	20
Mill												
Bi-Mill, Standard	■	■	■	■	■	■	■	■	■	■	■	■
Bi-Mill, Hard Formation			■			■		■				
Bi-Mill, Mechanical System		■	■	■		■						
Tri-Mill, Standard		■	■	■	■	■	■	■	■	■		
Tri-Mill, Extended System						■						
Quad-Mill, Extended System						■						
Whipstock												
Hydraulic Set, Standard	■	■	■	■	■	■	■	■	■	■	■	■
Hydraulic Set, Hard Formation			■			■		■				
Hydraulic Set, Short			■	■		■			■			
Hydraulic Set, Extended						■						
Mechanical Set System		■	■	■		■						
Anchor/Packer												
Anchor, Hydraulic Set, Expandable	■	■	■	■	■	■	■	■	■	■	■	■
Anchor, Hydraulic Set, Retrievable	■											
Anchor, Mechanical Set		■	■	■		■	■	■	■		■	■
Combined Packer & Anchor, Retrievable			■			■			■			
Combined Packer & Anchor, Permanent		■	■	■		■			■			

For alternative configuration requirements, please contact your local Wellbore Integrity Solutions representative.

Features

Mills

- Bi-mill, tri-mill and quad-mill configurations
- Customized cutting structures for all casing and formation types
- Fabricated and integral mill designs

Whipstocks

- Unique multi-ramp profile offers rapid cut out and extended full gauge window
- Integral retrieval slot for whipstock recovery when required
- Configurations options for multi-lateral and flow by applications

Anchors

- Anti-rotation and high-axial-load slip design
- Hydraulic and mechanical set actuation
- High pressure packer element option available
- Large slip areas to reduce casing stress and provide more positive anchor set

Benefits

- Application specific configuration options
- One-trip solution saves time and cost
- Comprehensive planning process
- Proprietary modeling software to predict window geometry and BHA pass through
- Increased durability and reliability
- Improved milling efficiency in a broad range of casing and formations



TrackMaster Select

For more wellbore departure information,
contact your local WIS representative:

wellboreintegrity.com/intervention



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