

WWT FlexShoe (FLX)^{TM*}



- Guides casing past challenging deviations
- Strong, flexible and drillable

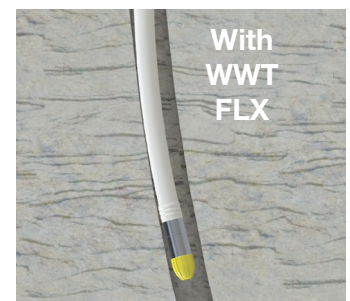
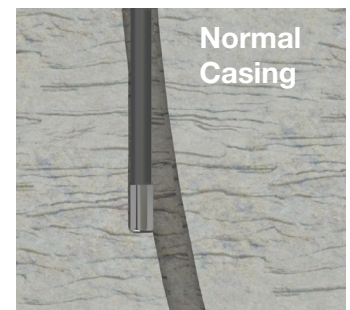
WWT FLX Specifications

WWT FLX Model	450	500	550	700	758	958	1175	1358	1400	1600	1800
Tube Size (inches)	5.00	5.00	5.50	7.00	7.63	9.63	11.75	14.00	14.00	16.00	18.00
OD (inches)	5.38	5.63	6.50	8.13	8.50	10.63	12.25	14.38	14.38	16.38	18.13
ID (inches)	3.88	3.88	4.88	6.25	6.75	8.62	10.75	12.63	12.63	14.63	16.63
Length (feet)	8.00	8.00	8.00	10.00	10.00	12.00	12.00	12.00	26.00	32.00	32.00
Rated Compression (lbf)	30,000	30,000	30,000	60,000	60,000	100,000	120,000	120,000	120,000	150,000	150,000

Note: Other sizes available upon request. Maximum temperature 220°F to 300°F. Length may vary depending on configuration. Lengths listed do not include casing connection. Specifications subject to change.

Features and Benefits

- Guides casing past doglegs, ledges and soft formations.
- Strong composite body is 10 times more flexible than steel casing.
- Casing can be rotated with WWT FlexShoe installed.
- Casing is cemented through the tool and easily drilled out.
- Patent-pending design enables low-stress transition from rigid casing to flexible shoe.
- Compatible with floats and other casing running equipment, including premium connections.
- Main structural components have been tested to 1.5 times the rated compressive load.
- Ideal for deepwater operations, extended reach drilling and horizontal wells.
- Torque and drag modeling and technical support 24/7.



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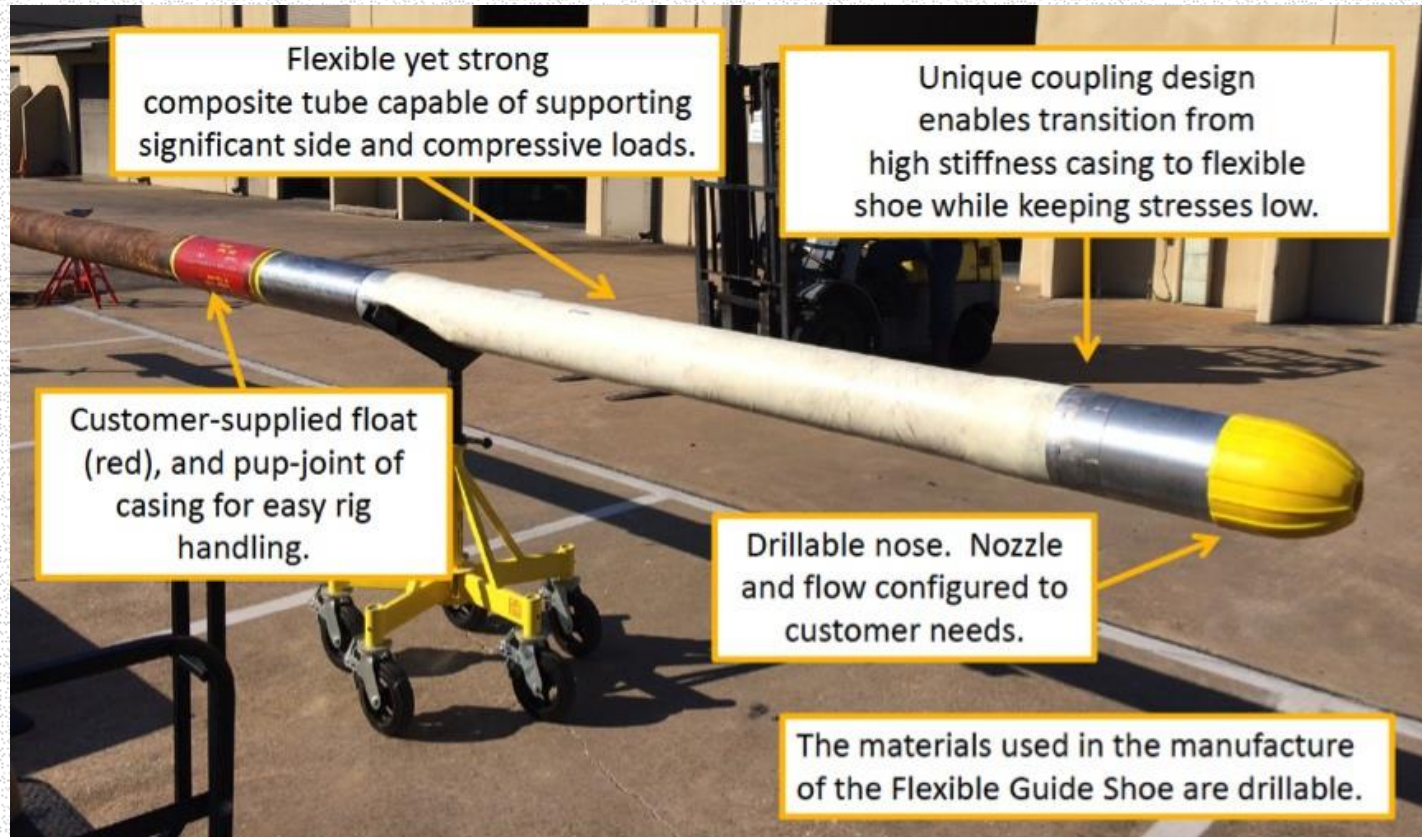


WWT FlexShoe

- Why?
 - Side forces are concentrated on the lead of the end of the casing while RIH, which increases the risk of hang-ups, having to work pipe, or getting stuck.
- When?
 - Running casing through build, tangent, lateral, drop, higher dog-legs, side tracks, faults, soft formations, or ledges.
 - Deepwater wells with inclinations greater than 30 deg.
 - Previous history of tight spots, washing down, having to rotate, or not reaching planned depth.
- The WWT FlexShoe reduces the force required at the lead end of the casing/liner to traverse difficult zones to reach planned depth quickly and cost effectively.



WWT FlexShoe Configuration



- Various FlexShoe Nose Configurations:
 - Polyurethane nose – all wells under 230° F
 - Polyurethane reamer nose
 - Cement nose – wells up to 300+ ° F
 - Cement reamer nose

