# Model WFX Crossover Tool

Weatherford's WFX crossover tool is a multi-position tool and the core component of the WFX sand-control system that includes the WFX setting tool, specific versions of the BlackCat™ retrievable sealbore packer, and the G2 gravel-pack extension. When used as part of the sand-control system, the cost-effective WFX crossover tool can effectively work with a variety of sand-control services, including conventional gravel packing, high-rate water packs, and frac-packing. The WFX crossover tool is designed to handle the extreme stresses of high-end sand-control treatments, and is resistant to the erosive nature of these treatments. This tool can also withstand the high-pressure differentials experienced during pumping and screenout.

The innovative design of the WFX crossover tool creates a compact and durable system that increases the chances of success without needless delays. The crossover tool remains in a weight-down or fixed position while in both the *squeeze* and *circulation* positions, unlike other multiple position tools. This feature is valuable when performing operations such as high-rate or high-volume pumping or when working from a floating vessel. The ability to maintain the tool's position with the work string in compression minimizes the chance of the crossover tool moving out of its intended position. This tool's ability to maintain its position is essential when thermal contraction of the work string or wave heave cause unintentional and undesirable work string movement.

## Applications

- Conventional gravel packs
- High-rate water packs
- Frac packs
- Straight and deviated wells
- Fixed and floating rigs

## Features, Advantages and Benefits

- High yield strength, low-alloy steel components increase the crossover tool's versatility for use in a wide variety of operational conditions.
- Large ID and flow area enables high pump rates with lower backpressure, minimizing fluid velocity, turbulence, erosion, and horsepower requirements.
- Port geometry and orientation were developed using computational fluid dynamics (CFD) software. CFD's complex fluid-modeling capabilities enable the tool to minimize exposure to erosive slurry forces, resulting in less wear on the completion equipment and well casing.
- Innovative circulating valve allows a lower tool profile to minimize system costs.
- Maintained fixed position during treatment make location of *circulating* and *squeeze* positions easier, providing better results from stimulation and sand-control treatments.

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## Features, Advantages and Benefits *(continued)*

- The tool maintains its position when the work string is in compression or weight-down mode, greatly reducing the chance of the tool coming out of its intended position when subjected to thermal contraction or wave heave. This feature helps to avoid problems during the pumping sequence and increases the effectiveness of the treatment.
- Large trash sump under the flow ports traps work-string debris, minimizing the chance of the ball seat remaining across the exit ports, while preventing damage to the crossover tool.
- A 10,000-psi pressure rating ensures tool integrity, adds to system versatility, and allows for high-pressure stimulation techniques, for increased well productivity.

## Specifications

| Packer Bore (in./*mm*) | Flow Tube ID (in./*mm*) | Pressure Rating (psi/*kPa*) | Part Number |
|---|---|---|---|
| 2.688<br>*68.28* | 1.24<br>*31.50* | 10,000<br>*68,948* | 825386 |
| 4.000<br>*101.60* | 1.74<br>*44.20* | 10,000<br>*68,948* | 914704 |
| 6.000<br>*152.40* | 2.875<br>*73.03* | 10,000<br>*68,948* | 1215786 |

Adapters to washpipe threads must be ordered separately