The WWT COS™ is a flow-activated downhole tool that can repeatedly open and close annular circulation ports to aid in hole cleaning. Two variables available to operators that aid in hole cleaning are annular velocity (AV) and mud rheology.

Standard practices dictate that higher AVs are much more effective than rheology in hole cleaning, especially in wells that are deviated more than 60 degrees.

Typically, circulation rates are determined by positive displacement motor (PDM) manufacturer specifications and tubing pressure limitations. With the WWT COS, the operator can raise AVs simply by increasing the pump rate beyond a predetermined setting that opens the annular circulation ports.

During the open condition, the WWT COS diverts most flow to the annulus. However, a certain amount still passes through the tools in the bottomhole assembly to aid in running in hole and to keep the PDM spinning.

To close the ports on the WWT COS, the operator only has to adjust the circulation rate below the WWT COS flow setting. Increases or decreases in circulation pressure from PDM torque will not affect the opening/closing of the ports.

The WWT COS can be used on its own or in conjunction with other components such as the WWT Coiled Tubing Tractors™, positive displacement motors, drill bits, milling bits, nozzle subs, various logging tools, perforating guns and sand-washing tools.

- Performs well cleanouts more effectively and in less time when using flow-sensitive downhole tools.
- Provides 1,000 to 1,200 psi reduction in pump pressure, significantly increasing the life of coiled tubing when used for plug drillouts in HP wells.
- Capable of circulation rates of up to 6+ bpm at low pressure when open.
- Length: 9", OD: 2.875"
- Centerline ID: 0.5"
- Max. Flow Rate: 6.0 bpm
- Connection: 2-3/8 PAC
- Tool can be actuated “open” or “closed” repeatedly without dropping pump rate to zero.
- Machined from acid-and H₂S-resistant materials.

www.wwtinternational.com

© 2015 WWT North America Holdings, Inc. All rights reserved. ® is a registered trademark of WWT North America Holdings, Inc.
™ WWT Clean Out Sub and WWT Coiled Tubing Tractors are trademarks of WWT North America Holdings, Inc.