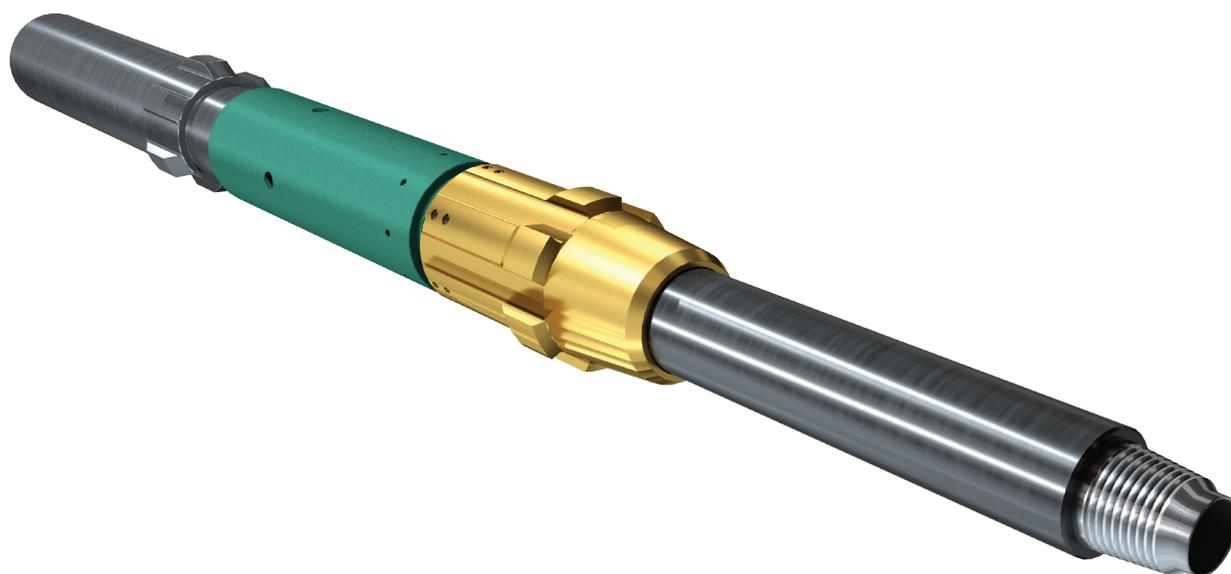


# LCT-Liner Top Circulating Tool



The **LCT- Liner Top Circulating Tool** is a robust and simple circulating tool which can be opened and closed by string manipulation. It is landed onto a Liner Top or similar restriction to allow circulation of the casing above. The LCT- Liner Top Circulating Tool is available to suite common casing and liner combinations.

---

## FEATURES

- Functioned by manipulating string weight with out the use of darts or balls
- Can be opened and closed multiple times without limitation
- Shear ring is available with several shear ratings to suit requirements
- Can be used when milling or drilling operations
- Reverse circulation capability before and after shearing
- Robust splined drive system for torque transmittal
- Robust assembly method with back-ups
- Compatible with other OWS ArmRdillo™ wellbore clean-up tools



## BENEFITS

### Cost savings

- The LCT- Liner Top Circulating Tool significantly reduces the time to displace wells by allowing the large casing above a liner to be displaced separately
- Reduces chemical consumption and brine filtration when used in combination with a well-engineered chemical displacement
- The LCT- Liner Top Circulating Tool can be opened and closed at exactly the right moment to accurately spot pills reducing waste volumes

### Increases Well Productivity

- A properly executed wellbore clean-up reduces fine debris which can block screens and pore throats reducing well productivity

### Reducing Non-Productive Time

- A robust wellbore clean-up is proven to reduce non-productive time during the completion of the well

## APPLICATIONS

- Pre-completion wellbore clean-up operations which include a larger diameter casing and a smaller diameter liner

## OPERATIONAL

- The LCT- Liner Top Circulating Tool can be run independently or as part of a comprehensive wellbore clean-up string
- The L LCT- Liner Top Circulating Tool has an integral landing sleeve which lands out inside the Liner Top PBR
- Whilst running in the hole, the string can be reciprocated and rotated to allow the scrapers and other tools to clean the critical depths
- When required the tool is functioned by applying and maintaining string weight to allow circulation of the casing through the opened tool ports
- Chemical pills can be pumped to displace the liner and casing separately and more accurately than using conventional ball activated tools
- To close the tool ports pick up off the liner top

### NORWAY

Hammaren 19  
P.O.Box 152  
NO-4098 Tananger  
Norway

Tel: +47 51 64 84 00  
Fax: +47 51 64 84 01  
ows@ows.no

### UNITED KINGDOM

Crawpeel Road  
Altens Industrial Estate  
Altens Aberdeen AB12 3LG  
Scotland

Tel: +44(1)224 85 6000  
Fax: +44(1)224 85 6001  
owsuk@odfjelldrilling.com

### NETHERLANDS

Stehpenonweg 18<sup>a</sup>  
7741 KW Coevorden  
The Netherlands

Tel: +31 (0) 524 527 000  
Fax: +31 (0) 524 527 001  
owsnl@odfjelldrilling.com

### ROMANIA

Ariceştii Rahtivani  
-Ploiesti West Park  
Cladirea SME, Mod 13&15,  
Birou 3B  
107025-Prahova  
Romania

Tel: +40(0)344 220 102 /  
+40 (0)344 220 106  
owsro@ows.no

### MIDDLE EAST, AFRICA, ASIA

Office 3201, 32nd floor  
Tiffany Tower,  
W-Cluster, JLT  
P.O. 17354  
Dubai UAE

Tel: +971 4 3640500  
Fax: +971 4 3640501  
ows@ows.no