

# HYBRID LOCK MANDREL

## Annulus Bore

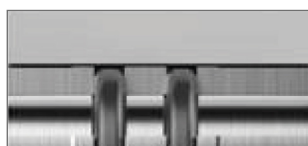


**The Oilenco Hybrid Lock Mandrel is a high performance well isolation barrier that uses our mechanical expanding hybrid seal technology.**

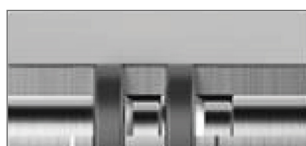
The lock mandrel provides a 'best of both worlds' approach as it has the integrity assurance of a bridge plug sealing element, but with the simple operation of a conventional lock mandrel.

*"Hybrid expandable seal technology"*

The hybrid sealing technology ensures that the seals are run below gauge of the hybrid lock mandrel. Once located in the well bore, the hybrid lock mandrel is set and the seals energised by downward jarring. This engages the locking keys in the profile and allows the seals to energise in the seal bore.



Hybrid seals unset position for run in hole



Hybrid seals in set position

### TECHNICAL FEATURES

- Bi-directional sealing and integrity assurance due to proven sealing technology
- Seals run under gauge to prevent damage to seals during setting
- Reduced run requirements - 1 run to set and 1 run to recover
- Hybrid expandable seal technology
- Positive indication that plug is correctly set
- Uses existing landing nipple profile
- Easily field redressable

### MODEL OPTIONS

- Models for production and annulus bore
- Models to suit all major landing nipple suppliers from 2 3/8" to 7"
- Pressure ratings qualified from 5,000 to 15,000 psi - subject to landing nipple type
- Temperature qualified from -10°C to 150°C, HPHT seals are available

Oilenco have an extensive rental stock for quick response solutions.

*"Certified to API 14L | ISO 16070:2005 | GRADE V0"*



### APPLICATIONS

- Flow-through applications - the plug can be crossed over to remote opening devices
- Can be run with the **pressure wave valve**
- Well barrier during well maintenance and workovers
- Plug and abandonment (P&A) worksopes
- Plug and lubricate (P&L) worksopes

### FURTHER INFORMATION

To speak to one of the Oilenco team about the hybrid lock mandrel or our hybrid plug solutions, call **+44 (0)1224 548700** or email **info@oilenco.com**.