

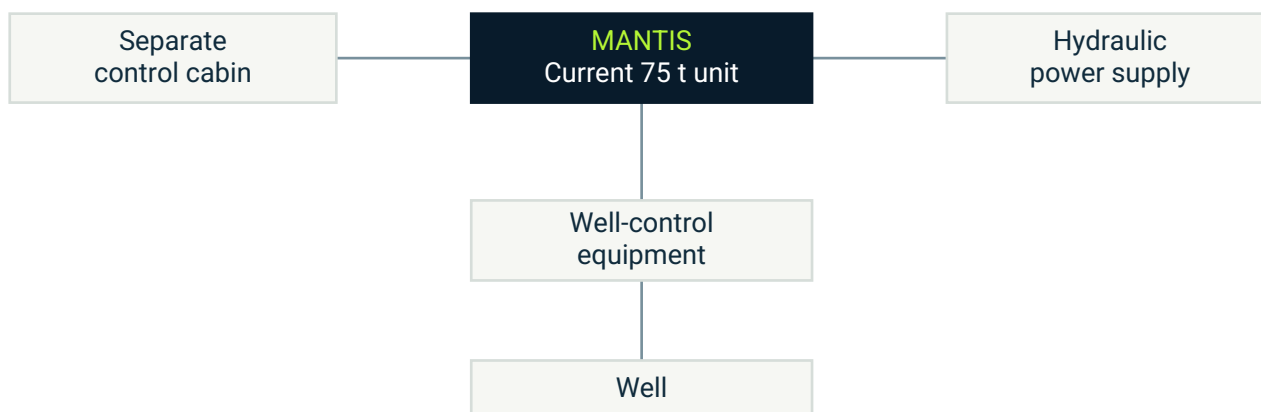
# Rigless well intervention. Plug & abandonment.

MANTIS is an ultra-light, remotely controlled hydraulic workover unit for selected rigless well-intervention and plug & abandonment scopes.

|                                                                  |                                                                                           |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Pulling capacity<br><b>75 t</b><br>At 310 bar hydraulic pressure | Slip gripping range<br><b>2 3/8 - 7 5/8 in</b><br>Selected slips, connections and tooling |
| Approximate unit diameter<br><b>2.5 m</b><br>MANTIS unit only    | Indicative unit crew<br><b>2-3</b><br>Per active shift                                    |

These figures describe the current 75 t unit. Unit diameter and unit crew exclude the complete spread and supporting services. Hydraulic pressure is not a well-pressure rating.

## How the deployment fits together



Indicative interface map - not a dimensioned layout. Hydraulic jacking, power tongs and pipe handling are controlled from a separate cabin. The load path and supporting equipment are engineered for the well and location. Request module weights and lifting information for your proposed configuration.

## Integrated delivery

Ter Bron provides the MANTIS system and its engineering knowledge. Integrated services are delivered with local partners, with the service package and responsibility split agreed per project.

# Scope and deployment review

| Scope              | Current status                                                |
|--------------------|---------------------------------------------------------------|
| Plug & abandonment | Field experience                                              |
| Wireline support   | Field experience                                              |
| Tubing recovery    | Field experience                                              |
| Workover           | Field experience                                              |
| Re-abandonment     | Candidate application – full scope not yet field-demonstrated |
| ESP change-out     | In development                                                |
| Heavier strings    | Next 200 t unit / under development                           |

Field experience identifies scopes performed on MANTIS jobs. Candidate applications are within the current unit capability; execution of the complete scope has not yet been demonstrated in the field.

Standard tubular connections today. Premium-thread handling, milling and ESP cable-handling arrangements are in development. Offshore deployment requires installation-specific engineering and acceptance.

## Inputs for an initial technical review

|                                                                                                                  |                                                                                                               |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Well and scope                                                                                                   | Tubular programme                                                                                             |
| Country, onshore/offshore setting, intended intervention or P&A activities and indicative timing.                | Tubular sizes, connections, estimated loads and overpull requirements, handling and workstring needs.         |
| Site and interfaces                                                                                              | Services and responsibilities                                                                                 |
| Access, ground/deck loads, crane reach and lift limits, installed height, module weights and full-spread layout. | Well control, hydraulic power, fluids, wireline, lifting and supporting services, agreed with local partners. |

## Relevant experience

20 well operations and test deployments across Norway, the UK, Switzerland, Germany and the Netherlands: cementing, workovers and testing. Separately, engineering studies for offshore operators in Denmark, Norway and the UK.

## Next unit

The next MANTIS unit is under development, targeting 200 t pulling capacity and a tubular range up to 9 5/8 in. Final specifications and availability are to be confirmed.

## Engineering and assurance

LBEG approval 320 relates to the documented current 75 t unit. SodM reviewed its HSE case and issued a no-further-questions letter. Equipment records, management-system certificates and project verification documents are available for scope-specific review.