As a customer focused company, Fugro understands the importance of designing, building and operating ROVs that meet the specific requirements of each project. Equally important, our ROV experts have in-depth knowledge of ROV system design, providing the superior level of competence that customers look for.

No two projects are ever the same, but because of our unique ability to control the manufacture of ROVs, we can ensure that the systems we build for a particular client can be easily adapted to suit specific project requirements. Operational, working dives have been undertaken down to 3,819 msw.

In addition to its ability to carry a full instrumentation package, the FCV 4000 has class-leading mechanical / hydraulic tooling interfaces that include:

- Mechanical interface: Fugro proprietary 4-point
- Through frame lift: 3,000 Kg at 3 g
- Tooling: up to 430 LPM @ 210 bar

The FCV 4000 offers:
- Best-in-class components from established equipment suppliers
- Class-leading payload
- Semi-autonomous functionality
- 3D dynamic positioning
- Pilot training whilst ROV is on deck

This high specification workclass ROV demonstrates Fugro's commitment to providing innovative solutions using internal expertise.

The in-house designed and built 4000 msw rated FCV 4000 (200 HP) offers a market leading solution for ultra-deepwater intervention and support. As a customer focused company, Fugro understands the importance of designing, building and operating ROVs that meet the specific requirements of each project. Equally important, our ROV experts have in-depth knowledge of ROV system design, providing the superior level of competence that customers look for.

No two projects are ever the same, but because of our unique ability to control the manufacture of ROVs, we can ensure that the systems we build for a particular client can be easily adapted to suit specific project requirements. Operational, working dives have been undertaken down to 3,819 msw.
FCV® 4000 (200 HP)

Technical Specifications

Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>3.315 m</td>
</tr>
<tr>
<td>Height</td>
<td>1.875 m (excl. TMS)</td>
</tr>
<tr>
<td>Width</td>
<td>1.76 m (excl. TMS)</td>
</tr>
<tr>
<td>Weight</td>
<td>4.2 T (inc. 400 Kg payload)</td>
</tr>
</tbody>
</table>

Power

- Motor: 1 x 2,850 VAC @ 150 kW (200 Hp)
- Hydraulic pump flow: 430 LPM @ 60 Hz
- Hydraulic pump pressure: 210 bar (main)
- Single phase electric supply: 10 KVA, 24 VDC & 110 VAC
- Tooling: up to 430 LPM @ 60 Hz

Speed

- Forward / aft: 3.9 knots (2.05 m/s)
- Lateral: 3 knots (1.54 m/s)
- Vertical up / down: 3 knots (1.54 m/s)

Thrusters

- 4 x 15” vectored horizontal: Fwd/Lateral: 1,209 Kg
- 3 x 15” vectored: Vertical: 1,239 Kg

Sensors

- Heading: TOGSNAV
- DVL: TOGSNAV
- Pitch and roll: TOGSNAV
- Depth: TOGSNAV
- Altimeter: Simrad 1007 digital altimeter
- Sonar: Simrad MS 1171 6000 m digital
- Cameras: 12 x SD Cameras, 8 at any one time
- Data: RS232, RS485 TTL Ethernet and Gb Ethernet
- Lighting: 12 x 24 VDC Dimmable LED lights
- 4 x 110 VAC Flood lights

Manipulators

- Manipulator 1: Schilling TITAN 4
- Manipulator 2: Schilling RigMaster
- Optional: Schilling ATLAS

Control System

- Vehicle control: Fugro proprietary ERA-004
- F0 multiplexer: Fugro proprietary SMFO

Tooling

- Mechanical interface: Fugro proprietary – 4 point
- Through frame lift: 3,000 Kg
- Tooling HPU: 90 LPM @ 210 bar
- Bi-directional solenoid: 30 x solenoid valve channels
- Serve valves: 8 (7 thruster + 1 spare)
- Mini IVP: 4 NG3 + 1 NG6
- High flow IVP: 4 x 90 LPM

Power Requirements

- System (typical): 500 KVA, 380-500 VAC
- 3-phase supply 50/60 Hz
- 60 Hz for optimum performance

Main Lifting Umbilical

- 37 mm Ø double armoured
- Optimised design with single mode fibres in robust steel tube

TMS

- Type: Top hat, PSSL Type 4, 11 Te SWL
- Tether: 600 m of 30 mm diameter tether
- Dimensions: 1.8 m (Dia) x 2.0 m (H)
- Weight: In Air/Water: 2.5 T (inc 600 m tether)