Seaeye Panther Plus is a light weight work class ROV & an evolution of the Seaeye Panther to provide greater power, payload & interface options. Forward thrust has been doubled to an impressive 220 kg and lateral thrust increased from 85 kg to 170 kg with a relatively small increase of the vehicle’s in air weight to 500 kg. Payload has been increased to 105 kg.

The Fugro Subsea Services fleet of Panther ROVs have been used to good effect in general drill support, completions, workovers, pipeline survey, platform survey, light construction support, cable lay & plough support.

The Fugro Subsea Services Limited Panther Plus ROVs are all deployed in a side entry garage Tether Management System (TMS) and, in their standard configurations are launched using a dedicated Crane Launch and Recovery Skid.

**Key Tasks:**

- ROV Services
- Construction Support
- Platform Inspection
- Inspection, Repair and Maintenance
- Wind Farm Support

The ROV frame is made from extremely rugged polypropylene chassis with a stainless steel lift frame.

The 2 electronics pods provide most of the Panther Plus buoyancy. Additional buoyancy is provided by shaped syntactic foam blocks.
## SEA'EYE PANTHER PLUS

### Technical Specifications

#### Vehicle Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>1.75m</td>
</tr>
<tr>
<td>Height</td>
<td>1.22m</td>
</tr>
<tr>
<td>Width</td>
<td>1.06m</td>
</tr>
<tr>
<td>Weight</td>
<td>500kg</td>
</tr>
<tr>
<td>Depth</td>
<td>1000msw</td>
</tr>
<tr>
<td>Payload</td>
<td>110kg</td>
</tr>
</tbody>
</table>

#### Power

- **Propulsion**: 16kva
- **Tooling**: 11kva

#### Performance

- **Fore/aft**: 220kg
- **Lateral**: 170kg
- **Vertical**: 75kg

#### Speed

- **Fore/aft**: 3.0 knots
- **Lateral**: 2.8 knots

#### Thrusters

Seaeye SM5 brushless DC Motors - 8 x Vectored horizontal, - 2 x Vertical

#### Manipulators

1x 6 function HD6R with HD2040 12” grabber
1x 5 function HD5, 6” jaws, 360° rotator (36Nm)

#### Pan & Tilt

- **Electrical Tilt Unit**: ± 90 deg
- **Pan Unit**: ±135deg
- Both units with positional feedback displayed on overlay.

#### Cameras

1 x Colour CCD Camera
1 x Low Light, Black & White Camera (optional – up to 4 video channels)

#### Sensors

- **Heading**: gyro compass
- **Pitch and roll, Depth, Altimeter, Sonar**

#### Lights

- System capacity up to 6
- Standard capability 4 x 150W

#### Telemetry

- Fibre optic multiplexer 4 x RS232, 2 x RS485 10/100 Ethernet (optional)

#### Auto Functions

- Auto depth control
- Auto altitude control
- Auto heading control

#### Tooling Skids/Packages

Survey Skid: Comprising camera booms, 5F manipulator for CP or cleaning brush.
Drill Support Package: Anvil Cable cutter, ax ring tool and water jet tool. Torque tool Single point TDU

#### Surface control system

- Microprocessor
- Operating system

#### Power Requirements

- Launch and recovery System: 37kW / 440VAC / 50-60Hz, fed from a motor rated breaker
- Control Van: 50kW / 440VAC / 50-60Hz, fed from a motor rated breaker

#### TMS

<table>
<thead>
<tr>
<th>TMS Type</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Tether Length</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1.792m</td>
<td>1.491m</td>
<td>2.48m</td>
<td>200m (up to 250m)</td>
<td>0.95T (excluding ROV)</td>
</tr>
</tbody>
</table>

#### Main Components

- Remotely Operated vehicle (ROV)
- Tether Management System (TMS)
- 20ft Control Container / workshop (combined) or 15ft Control Container and 10ft Workshop.
- Integrated LARS: A-Frame or Crane incorporating winch and HPU.
  - Typical Integrated Crane LARS: 4.65m x 2.7m x 2.9m (L x W x H) @ 13.5Te
  - Typical Integrated A-Frame LARS: 5.59m x 2.64m x 2.44m (L x W x H) @ 15.2Te
- Suitable for use in a Hazardous Environment (Zone 2)