



## Equipment Data Sheet:

### Description: **PANTHER PLUS ~ Work/Observation ROV System**

**Seaeeye Panther Plus** is a development of the Seaeeye Panther in response to a requirement for greater power, payload, more interfaces and a work class ROV capability excluding heavy construction work.

Forward thrust has been doubled to an impressive 220 kg with 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. These improved performance figures translate into handling characteristics that pilots report as being 'simply spectacular.'

Visually, the distinguishing feature of the Seaeeye Panther Plus is the additional 4 vectored SM5 brushless DC thrusters making a total of 8 vectored thrusters in pairs. The ROV frame has been slightly enlarged to accommodate these thrusters, improve through frame water flow and provide space for a 12 function hydraulic valve pack for tooling and manipulator applications.

A particular benefit of the 'Plus' configuration of pairs of vectored thrusters and two vertical thrusters is the level of redundancy available. The power for the thrusters is split into two channels with each channel providing DC to one vertical thruster and 4 of the 8 horizontal thrusters. If a fault should develop on one channel it can be isolated allowing operations to continue at half power. If there is a failure in only one horizontal thruster the effect on vehicle performance and control will be barely noticeable.

- **Max operating depth: 1000 metres**
- **220 kg forward thrust (bollard pull)**
- **170 kg lateral thrust**
- **Weighing only 500 kg in air**
- **105 kg payload**
- **10 brushless DC thrusters with velocity feedback for superior control**
- **Auto heading and depth**
- **Two hydraulic manipulator interfaces**
- **12 function hydraulic solenoid valve pack**
- **Seaeeye high torque pan and tilt unit**
- **Dual channel variable intensity lighting**
- **Interface for survey sensors**
- **4 simultaneous video channels**
- **Integral video overlay system**



### **Tether Management System**

The TMS is a rugged all steel, side entry system using a tether cable bailing arm technique to eliminate underwater slip rings. The vehicle is secured within the T.M.S. by a hydrostatic device for launch and recovery. The vehicle can be easily maneuvered into the T.M.S. either forwards or backwards. Tether cable capacity is 150 metres.

