AC-CESS

REMOTELY OPERATED VISION AND SENSE

Tel: +44 (0)1224 790100 · Fax: +44 (0)1224 790111 · www.ac-cess.com

AC-ROV 3000

Fly-Out System

The AC-ROV 3000 is the first ever deep ocean micro ROV.
To maximise its capability it comes fully packaged with a Tether Management System (TMS) allowing it to operate as a 3000m depth rated “Fly-Out” from many types and size of host submersible.

As a **BUDDY** the AC-ROV 3000 can keep a watching eye on the host vehicle and everything it does. Duties include checking the tether, giving added perspective on any tool deployments and generally providing an overview of operations. This adds up to reducing risk, limiting host vehicle movement and increased productivity.

As a **SCOUT** it can advance into situations where the host vehicle can not go, or the risks are high. IE: pipe work, wreck inspection, thermal vents etc. Insurance cover for high risk operations can be difficult to obtain or prohibitively expensive. This is where a less expensive asset comes into its own. The vehicle is small, simple and robust thereby minimising the value and maximising the durability of the part exposed to the greatest risk.

The Fly-Out concept has been around for more than 30 years and attempted in various forms. Nearly all have been project specific matching an existing small ROV to a much bigger host vehicle, all with varying degrees of success.
The AC-ROV 3000 Fly-Out package is a pedigreed game changer.

- **Taking the AC-ROV pedigree deeper**
- **Using the best in TMS know how from ALL OCEANS**

The AC-ROV 3000 is marginally bigger than the standard proven AC-ROV. Its “fly through” size is 200mm compared to 190mm for the standard vehicle. Both use the same unique arrangement of centre-less thrusters for maximum efficiency and mobility. The totally intuitive 3D hand grip interface is also the same for both vehicles and now incorporates TMS control. It is important to note that the standard AC-ROV can be interfaced to the same TMS for operations to 100m, making an ideal Fly-Out package for detailed inspections up and around, and even inside FPSO turrets and anchors for example.

Although very similar externally, the AC-ROV 3000 is altogether different internally compared to its mature relation. What is known to work well and deliver good reliability with the standard AC-ROV is retained. Only necessary changes and additions have been made to contend with the 40 fold increase in depth rating.

HOW SMALL CAN THE HOST VEHICLE BE?

Believe it or not, the whole Fly-Out system is small and light enough to mount off an inspection class ROV. Furthermore, with just 500w single phase peak power demand, an RS232 control interface and two composite video interfaces, the system does not present a big demand on host vehicle services. Check out these numbers and you will be surprised at what can host the AC-ROV 3000.

- **75kg in air complete and 40kg in water**
- **500w single phase auto ranging power interface**
- **RS232 control interface**
- **2 x composite video (ROV and TMS cameras)**
- **50m excursion on easy change-out tether**

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AC-ROV 100

SIZE	204mm x 151mm x 146mm
WEIGHT	3kg
DEPTH RATING	**100m**
CAMERA	Colour 560 line x 0.1 lux
THRUSTERS	6 thrusters 4 vectored and 2 x vertical
LIGHTS	4 camera tracking LEDs Variable brightness
CONTROL	5 axis 3D grip (LH or RH)
MONITOR	By customer
VIDEO OVERLAY	Date, Time, Power level, Depth
SENSORS	Water ingress, temp, humidity
OPTIONS	As for AC-ROV 100

AC-ROV 3000

SIZE	204mm x 151mm x 168mm
WEIGHT	3.6kg
DEPTH RATING	**3000m**
CAMERA	Colour 560 line x 0.1 lux
THRUSTERS	6 thrusters 4 vectored and 2 x vertical
LIGHTS	2 camera tracking LEDs Variable brightness
CONTROL	5 axis 3D grip (LH or RH)
MONITOR	By customer
VIDEO OVERLAY	Date, Time, Power level
SENSORS	Water ingress, temp, humidity
OPTIONS	NA

TETHER MANAGEMENT SYSTEM

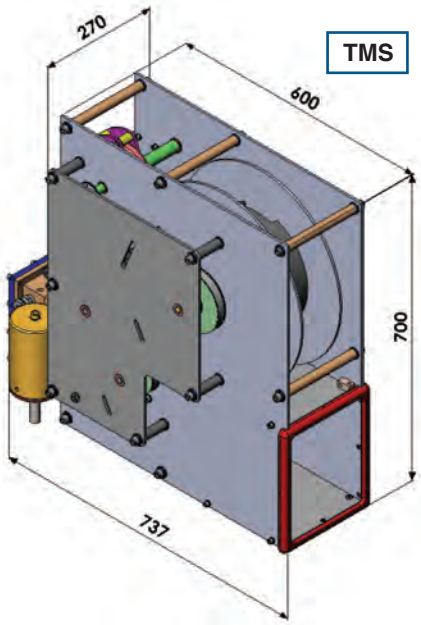
The Tether Management System (TMS) is arguably the most important part of a Fly-Out package. The confidence to repeatedly deliver a Fly-Out ROV to a target depends on the winch device, the heart of any TMS, being totally reliable in dispensing, recovering and storing tether cable. Unlike any other type of winch there is no option for human intervention at the work site.

Tether management has been a core speciality of All Oceans Engineering (AC-CESS' parent company) since 1990. The Fly-Out system combine this know how with the proven AC-ROV product to deliver further game changing solutions to underwater operators around the world.

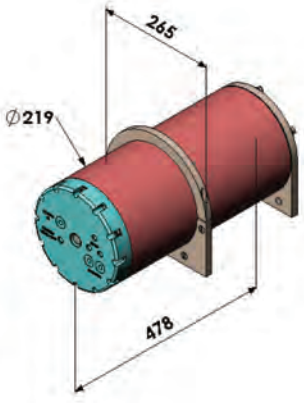
The TMS winch package is common to both ROVs, adjustable to suit different tethers and provides a minimum 50m excursion capability. A tether connector inside the storage drum allows for speedy tether change-outs. There are two electronic bottle options, 150m or 3000m depth rated, however connectors and interfaces are identical. An oil filled junction box and compensator is also common to both systems.

- **Power** — **500 watt peak, 100 / 240 vac single phase. Power supplies, auto ranging**
- **Control** — **RS232 IF**
- **Video** — **2 x composite - AC-ROV camera and TMS camera**
- **Sensors** — **Water ingress in electronics bottle, line out counter, low comp level**
- **HMI** — **Serial interface 3D hand grip. Flight control / lights / TMS and AC-ROV 100 options**
- **Monitor** — **Video overlay date / time / power level / line out / alarms / depth (AC-ROV 100 only)**
- **Weights** — **75kg complete in air and 40kg in water**

TMS



3000m Electronics Bottle and brackets



AC-ROV 3000