

ACERGY CORE VEHICLE (ACV)



Work Class Remotely Operated Vehicle (WROV) Permanently Installed Onboard the Sapura 3000

Sapura 3000 has further enhanced its capabilities by installing two (2) work class ROVs systems - the Acergy Core Vehicles (ACVs). The ACV is one of the most advanced ROV systems available and is designed to support SURF, IMR and Survey operations.

The ACV is driven by a 150SHP hydraulic system comprising of a 210cc main pump and 71cc auxiliary pump. The ACV is configured with four (4) Sub-Atlantic SA420 horizontal thrusters and four (4) Sub-Atlantic SA300 vertical thrusters giving a substantial bollard pull and a stable vertical lift capability. The ACV is also fitted with a subsea dynamic positioning system "Station Keep™" which provides enhanced control of the ROV during operations.

The ACV is fitted with a Schilling T4, 7-Function Master Slave Manipulator and a 5-Function Grabber as a complimenting pair to provide a very versatile range of manipulator operations.

The ROV system is designed to provide an efficient intervention support to projects and is equipped with a high level of structural intervention points. There is a range of hydraulic and electrical connections for the operation of tooling and auxiliary equipment. The connections are all designed to be easily accessible and are of a "Plug and Play" design for quick, efficient change out of equipment.

The Tether Management System (TMS) can accommodate up to 1500m of tether for long excursion operations. This enables the ACV to perform touch down monitoring in deeper water depths. To further enhance the excursion, the TMS unit is fitted with two (2) SA420 thrusters to enable TMS heading hold and offsets from launch point.

Strength and Depth

ACV specifications

VEHICLE TECHNICAL SPECIFICATION

Depth Rating 3000m
Forward Thrust 1000kg bollard pull
Lateral Thrust 720kg bollard pull
Vertical Thrust 600kg bollard pull
Propulsion comprises of 8 Sub-Atlantic thruster units
4 x SA420 vectored horizontal
4 x SA300 vertical
Speed: 3kts horizontal and 2.0kts vertical

VEHICLE FRAME

Height 1.955m
Width 1.899m
Length 3.353m
Lift Point SWL 7.9Te
Through Frame Lift 3.0Te

INTERNAL PAYLOAD CAPABILITY

300kg payload over standard ROV fit.
Nominally 150kg on the Manipulator Deck and 150kg on the Centre Deck

EXTERNAL PAYLOAD CAPABILITY

Underslung 3000kg
Rear 1000kg
Side 250kg
Front 1000kg

HYDRAULIC SYSTEM

1 x 150 Shaft HP Electric Motor
Main Pump (Linde HPR 02 210cc)
Auxiliary Pump (Rexroth A10VSO71)
Aux system can deliver 125LPM
2 x 4way TCU for Thruster/Ancillary equipment
2 x 12 Station valve packs for manipulators and tooling
1 x High Flow Valvepack

MANIPULATORS

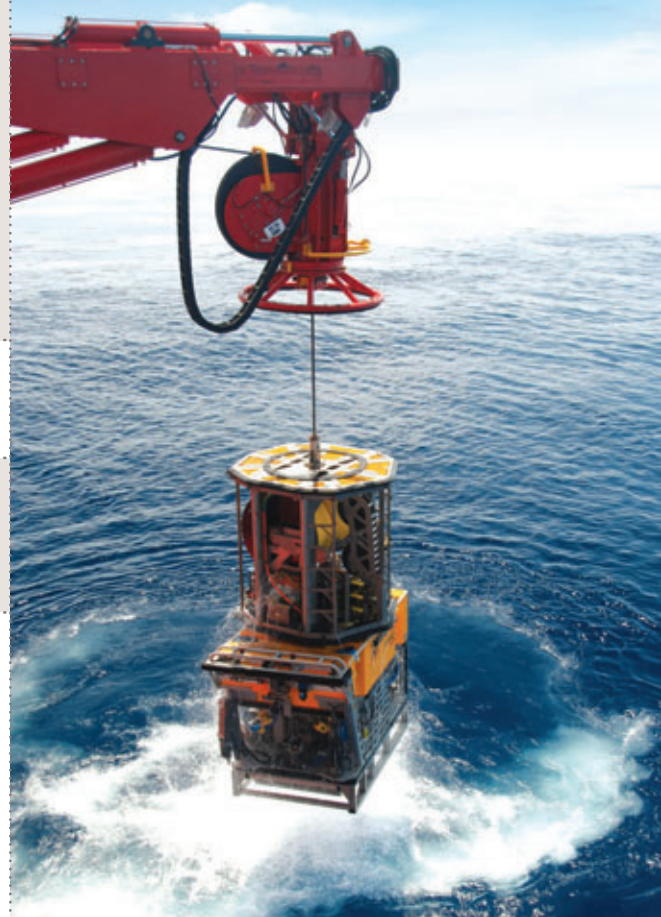
5-function Schilling Rigmaster
7-function Schilling T4

TELEMETRY SYSTEM

Schilling Digital Telemetry System (DTS)
3 x DTS 16 Port Nodes

VIDEO EQUIPMENT

T4 Manipulator Camera
Kongsberg OE15-102 SIT Replacement
Kongsberg OE14-366 Colour Zoom
Kongsberg OE15-108 PAL
2 x Electric Pan and Tilt Units



NAVIGATION

Tritech Super Seeking Obstacle Avoidance Sonar
8 x 250W DSP&L Midwater Sealites
2 x 70W DSP&L SeaArc 5000 HID lights (Optional)
Seimac ST400AR Emergency Strobe

SENSORS

CDL Minipos II RLG INS
RDI Navigator 1200 DVL
Kongsberg MST324N Responder
Paroscientific Digiquartz depth sensor

TETHER MANAGEMENT SYSTEM (TMS)

Length 2.3m
Width 1.9m
Weight in Air 4.5Te
Weight in Water 3.5Te
Lift Point SWL 12.5Te
Latch SWL 8.0Te
Tether 27mm OD, 1500m long
35mm OD, 850m long
Speed 0-50m/min Average
Line Pull 100kg