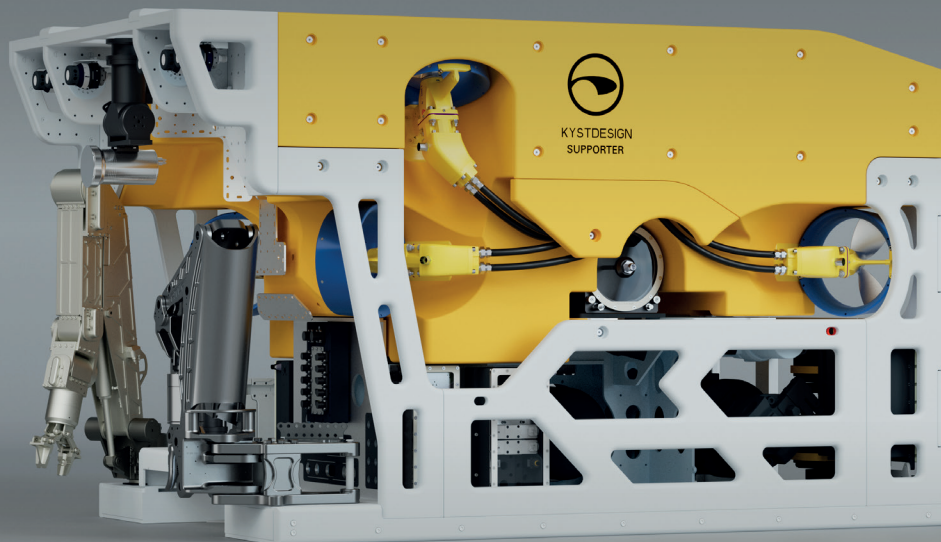


# SUPPORTER 3000.



COMPACT  
WORK-CLASS  
ROV



The SUPPORTER technology is refined from years of operational and “hands-on” experience by our designers. The top-side control system for KYSTDESIGN ROV’s is designed with focus on providing an ergonomic, intuitive and efficient working environment. Single or dual operation stations can easily be configured to individual needs. Operator task priorities can be switched and shared between stations during operation.

The SUPPORTER ROV accommodates up to 41 electrical connectors for interface of external equipment, such as tooling, survey sensors and cameras, and all electrical power supplies are ground-fault monitored. The ROV also accommodates 24 hydraulic functions, all proportionally controlled.

The ROV control system is prepared for a variety of auto functions like AutoPOS and AutoTRACK capabilities, in addition to over-the-horizon control from a Remote Operation Center (ROC) onshore.

## SPECIFICATIONS, SUPPORTER 3000

<b>General:</b>	
Power	115 Kw / 150 Hp
Depth rating ROV	3000 msw
Dimensions (L/W/H)	2750 / 1700 /1650 mm
Weight	3600 kg
Payload	400 kg
Through Frame Lift capacity	3000 kg
Thrusters	7 x SA300
<b>Mechanical Capacity and Interfaces:</b>	
Free space inside ROV for utility equipment:	Open area of approx. 350 L through the entire ROV, right in front of centre of gravity.
Interface for work modules:	Four docking receptacles underneath the ROV. Interface for Sensors and/ or modules by threaded inserts on all sides of the buoyancy element.
Manipulators:	Interface for Schilling T4, RigMaster and Atlas.
<b>Hydraulic Capacity and Interfaces:</b>	
Valve Pack No. 1	10 x Bi-directional Valves with proportional flow control, each with max flow 10 l/min. Pressure on VP controlled by VP No.3.
Valve Pack No. 2	10 x Bi-directional Valves with proportional flow control, each with max flow 10 l/min. Pressure on VP controlled by VP No.3.
Valve Pack No. 3	4 x Bi-directional Valves with proportional flow and pressure control, each with max flow 90 l/min.
Manifolds	Pressure and return manifolds mounted in front of the ROV. 1 x Pilot operated high flow valve with max flow 200l/min.
Aux System Capacity	220 bar 120 liter per minute
<b>Telemetry/Sensor Capacity and Interfaces:</b>	
Telemetry Link	By default the control pod and telemetry system are prepared for survey operations. Up to 6 fibre optic cables are available for communication. Total capacity in a standard system is 8 composite video channels, 36 serial communication channels and expandable to include 4 HD video channels (all in a single optical fibre). Ethernet, gigabit layer 1 (4 ports) with ethernet switch (4 ports) included. Optional Multibeam PECL.
Power Distribution	All power distributed to external users, such as lights, cameras and sensors can be switched on/ off from the topside computer and are equipped with individual fuses. When a sensor is switched off, it's corresponding subsea connector is galvanic isolated. Total available power 30A @ 115VAC. Available supplies: 115VAC, 24VDC, 48VDC, others on request.
Tool Interface	Max power consumption available is 20A @ 115VAC. Connector type: Seacon 5506-2008
Sensor Interface	Connectors are prepared for user/survey equipment. - 2 off Min-m-26 Gyro/Utility JB - 4 off Min-k-8 115VAC - 12 off Min-k-10 24VDC (48VDC) - 1 off Spare SH20 - Built in CP interface

<b>Camera and Lights:</b>	
Camera Interface	8 composite video camera inputs. Connector type: Seacon 5506-1508 or MinL-coax Camera interfaces 1 to 7 are prepared for use with focus & zoom cameras. Camera interface 8 is a combined manipulator communication and camera connector. HD interface is optional. F/Z lines are bipolar
Pan/Tilt	Electrical
Light Interface	Capacity for ten outputs, maximum total load of 2300W. Each output secured by 6A breakers, other breakers on request. Connector type: Seacon 5506-1503
<b>Performance:</b>	
Bollard Pull FWD/AFT	780/770 kg
Bollard Pull LATERAL	710 kg
Bollard Pull Vertical UP	730 kg
Bollard Pull Vertical DOWN	800 kg
Speed FWD	> 1,6 m/ s
Speed LATERAL	> 0,8 m/ s
<b>Pilot Interface:</b>	
<ul style="list-style-type: none"> <li>- Two identical pilot chairs, where all necessary controls for operating the ROV, TMS and PDU are integrated in the armrests</li> <li>- 1 off Multiview Controller</li> <li>- Monitors</li> <li>- Clearcom communication system, microphone and channel selectors integrated in pilot chair</li> </ul>	
<b>PDU:</b>	
Description	Two separate cabinets. One containing breakers, contactors, overload relays and signal transformers. The other serving as a termination and isolation point for all high voltage connections.
Input	3 phase 400-420-440VAC, 60 Hz (690VAC optional)
Output	<ul style="list-style-type: none"> <li>- ROV HPU 165 KVA, 3000-3150-3300VAC</li> <li>- ROV Instrument 10 KVA, 3000-3150-3300VAC</li> <li>- TMS HPU 23 KVA, 3000-3150-3300VAC</li> <li>- TMS Instrument 10 KVA, 3000-3150-3300VAC</li> </ul>
<b>Containers (Option):</b>	
ROV Control Container	<ul style="list-style-type: none"> <li>- 20' Container manufactured in accordance with DNV 2.7-1 Offshore Containers</li> <li>- Dimensions: 6058 / 2438 /3000 mm (L/W/H)</li> <li>- Air conditioned</li> <li>- Option: Zone 2 certification</li> </ul>
ROV Workshop / PDU Container	<ul style="list-style-type: none"> <li>- 20' Container manufactured in accordance with DNV 2.7-1 Offshore Containers</li> <li>- Dimensions: 6058 / 2438 /3000 mm (L/W/H)</li> <li>- Air conditioned</li> <li>- Contain workshop, PDU and transformers.</li> <li>- Option: Zone 2 certification</li> </ul>
<b>TMS (Option):</b>	
Various options available. Contact Kystdesign for further information.	