NORSOK class: III-B / Certified according to DNV standard for certification No.2.22, Lifting Appliances.

CONSTRUCTOR 5000

Uniquely designed for carrying and operating large tools and modules

POWER (Kw / Hp)	DEPTH RATING (msw)	DIMENSION L x W x H (m)	WEIGHT (kg)	PAYLOAD (kg)	THROUGH FRAME LIFT CAPACITY (kg)
160/220	5000	3,22x1,7x 1,9	4800	300	3000

KYSTDESIGN
SUB-SEA TECHNOLOGY

CONSTRUCTOR 5000

The CONSTRUCTOR 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 CONSTRUCTOR can accommodate up to 25 additional hydraulic tooling functions, up to 25 additional survey sensors and 10 camera connectors. All hydraulic functions are proportionally controlled, and all electrical power supplies are ground fault monitored. The ROV control system offers a variety of auto-functions like AutoPOS and AutoTRACK capabilities. Remote control is also available.

GENERAL

Power	160 Kw / 220 Hp
Depth rating ROV	5000 msw
Depth rating Buoyancy	5000 msw
Dimensions (LxBxH)	3,22 m X 1,7 m X 1,9 m
Weight	4800 kg
Payload	300 kg
Through Frame Lift capacity	3000 kg
Thrusters	7x SA380

MECHANICAL CAPACITY AND INTERFACES

Free space inside ROV for utility equipment:	Open area on approx. 460 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 frame and/or modules by threaded inserts on all sides of the buoyancy element.
Manipulators:	Interface for Schilling T4, RigMaster and Atlas

HYDRAULIC CAPACITY AND INTERFACES

Valve Pack No.1	10x 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	10x 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	4x 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. 1x Pilot opreated high flow valve with max flow 160 l/min. 1x Pilot opreated high flow valve with max flow 250 l/min.
Aux System Capacity	220 bar 160 liter per minute

TELEMETRY/SENSOR CAPACITY AND INTERFACES

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). Options are Ethernet, gigabit layer 1 (4 ports) with ethernet switch (4 ports), and 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 equiped with individual fuses. When a sensor is switched off, it's corresponding subsea connector is galvanic isolated. Total available power 20A @ 115VAC. Available supplies: 115VAC, 24VDC, 48VDC, others on request.
Tool Interface	Max power consumption available is 20A @ 115VAC. Connector type: Seacon 5506-2008
Gyro Interface	Connector type: Seacon MinM-26#20, other on request
Sensor Interface	12 connectors are prewired for user/survey equipment. In addition 11 extra connectors can be installed. **Survey Sensors 1 to 8** Connector type: Seacon Min-K-10 - wired for 24/48VDC. Built in CP interface **Survey Sensors 9 to 12** Connector type: Seacon Min-K-8 - wired for 115VAC.

CAMERA AND LIGHTS

Camera Interface	10 camera inputs. Connector type: Seacon 5506-1508 or MinL-coax. One camera interface is a combined manipulator communication and camera connector. HD is optional. F/Z lines are bipolar/VISCA/IP
Pan/Tilt	Hydraulic and/or electrical
Light Interface	Capacity for ten dimmable lights, maximum load of 30A. Each output secured by 6A breakers. Connector type: Seacon 5506-1503

PERFORMANCE

Bollard Pull FWD/AFT	900
Bollard Pull LATERAL	850
Bollard Pull Vertical UP	800
Bollard Pull Vertical DOWN	900
Speed FWD	> 1,7 M/s
Speed LATERAL	> 0,9 m/s

PILOT INTERFACE

- Two identical pilot chairs, where all necessary controls for operating the ROV, TMS and PDU are integrated in the armrests.
- Multiview Controllers
- Monitors
- Clearcom communication system, microphone and channel selectors integrated in pilot chair.

PDU

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	• ROV HPU 230 KVA, 4200-4350-4500VAC • ROV Instrument 10 KVA, 3000-3150-3300VAC • TMS HPU 23 KVA, 3000-3150-3300VAC • TMS Instrument 10 KVA, 3000-3150-3300VAC

CONTAINERS (OPTION)

ROV Control Container	• 20´ Container manufactured in accordance with DNV 2.7-1 Offshore Containers. • Dimensions: 6058 x 2438 x 3000mm (LxWxH) • Air conditioned • Option: Zone 2 certification
ROV Workshop / PDU Container	• 20´ Container manufactured in accordance with DNV 2.7-1 Offshore Containers. • Dimensions: 6058 x 2438 x 3000mm (LxWxH) • Air conditioned • Contain workshop, PDU and transformers. • Option: Zone 2 certification

TMS (OPTION)

Various options available. Contact Kystdesign for further information.

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