

Millennium® Plus with RIPS BOP

Heavy work class ROV with integrated, high-flow BOP intervention capabilities

The Millennium® Plus with ROV Integrated Pumping Solution (RIPS) delivers high-flow BOP intervention capabilities. It is a side entry cage deployed, dual manipulator, 220 hp heavy work class ROV.

The RIPS BOP kit consist of two double ended electric motors. Each are coupled with a low viscosity variable displacement pump, supporting a completely isolated BOP intervention or tooling circuit.

The cage or tether management system (TMS) supplies an additional 110 hp and is capable of powering skids, and has thruster control and auto heading.



FEATURES

Integrated API S53 compliant system

Maximizes efficiency: Supports substantial flow rates at increased pressure levels up to 5,000 psi

Integrated RIPS components eliminate requirement for a skid

Specifications

Vehicle Specifications	
Weight in air	≈10,000 lb / ≈4,535 kg
Dimensions (LxWxH)	10.8 x 5.5 x 7.3 ft / 3.3 x 1.68 x 2.2 m (height increase of 1 ft/.3 m compared to standard Millennium without RIPS)
Depth rating	10,000 ft / 3,000 m (standard) 13,000 ft / 4,000 m (optional)
Vehicle Power and Performance	
Hydraulic power units	2 x 110 hp[E]
Propulsion	4 x vectored horizontal 4 x vertical
Thrust	
Forward/reverse:	2,000 lb / 900 kg
Lateral:	2,000 lb / 900 kg
Vertical:	2,080 lb / 950 kg
RIPS BOP Specifications	
RIPS pumps	2 x 76cc low viscosity, variable displacement pumps (standard)
Pressure capabilities	0-5,000 psi
Flow capabilities	0-69 gal/min Flow @ pressure examples: 61 gal/min @ 3,000 psi and 55 gal/min @ 5,000 psi (other configurations are available if higher flow rates are required)
Fluid capacity	80 gallons standard (ability to increase if necessary)
Vehicle Manipulators and Tooling	
Manipulators (2)	5 or 7 function: rate, SC, or hybrid control
Hydraulic tool control	Multiple directional control valves with proportional pressure and flow control Maximum 40 gal/min
Vehicle Cameras and Lighting	
Cameras	Standard definition (SD) High definition (HD) 3D HD (optional)
Lighting	Up to 8 x 250 W (quartz halogen or high-intensity LED)
Vehicle Control and Navigation	
Automatic control	Fly-by-wire station keeping system Auto heading/depth/altitude/pitch Cruise control
Heading and altitude sensors	Survey-grade gyro Backup flux gate compass
Depth sensor	High-resolution digiquartz Backup analog depth sensor
Navigation sensor	Doppler velocity log
Obstacle avoidance sonar	Kongsberg 1071 or 1171 Tritech SeaKing
Vehicle Optional Power and Data Interfaces	
Data links	Multiple RS232 and RS485 Ethernet Optical fiber
Power	24 V DC and 110 V AC
Tether Management System (TMS)	
Type	Side entry cage or top-hat
Propulsion	2 x horizontal (cage only)
Hydraulic power unit	1 x 110 hp[E]
Electro-optical tether	2,000 ft / 600 m (cage) 4,000 ft / 1,200 m (cage) optional 1,300 ft / 400 m (top-hat)
Cameras	2 x charge-coupled device (CCD)
Lighting	2 x 250 W (quartz halogen or high-intensity LED)
Launch and Recovery Systems (LARS) (choice of)	
Overboarding	
A-frame w/ or w/o docking head	
Heavy-weather overboarding system	
Cursor	
Winch	
Heavy lift winch with conventional or OHRA level wind	

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