

OWA TETSU-7

Work Class ROV

The **TETSU-7** system is a work class ROV suitable for construction and inspection projects. With its separate compact ROV Control Container and PDU Container it can be utilized with more layout variations making it versatile for a variety of space constraint locations.

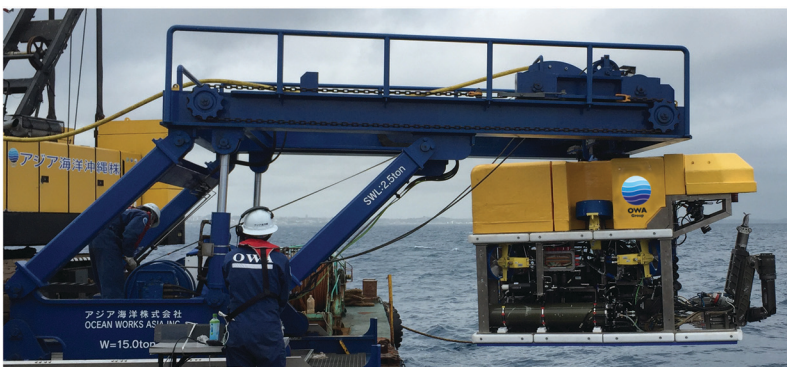


The Tetsu-7 Work Class ROV system was designed and built in Japan to ClassNK rules and has a unique gantry type LARS for uninterrupted crane operations when mobilised on the stern of a barge. The free flying system also has a slightly buoyant umbilical for long range excursions.

With a dedicated survey fiber optic line the ROV can be configured for many sensors and instruments, from Ethernet to RS232/RS485 protocols. The system has simple integration utilising industry standard Focal cards ensuring that there are plenty of data channels for the most advanced survey activities.

The 100 HP vehicle has four vectored horizontal and two vertical SubAtlantic thrusters. With a proven bollard pull of 450Kg, providing plenty of power for the majority of construction activities.

Equipped with the best manipulators on the market. Tetsu-7 is fitted with a Schilling Orion 7-function manipulator mounted on the starboard and a Schilling Rigmaster 5-function on the port side, enabling the most intricate work can be conducted subsea.



With a depth rating of 300 meters that covers most areas of operation that is feasible with a free flying ROV without pushing the limits.

Standard and High Definition Color Cameras, Black & White (SIT) Camera, and variable intensity LED lighting.

Providing Cost Effective Solutions

Vehicle Specifications

Manufacturer	Ocean Works Asia
Year Built	2016
Depth rating (msw)	300m
Weight in air	2100kg
Payload	150kg

Vehicle Power / Performance

Power	100HP (75kw)
Bollard Pull	450kg
Forward Thrust	360kgf
Lateral Thrust	360kgf
Vertical (up) Thrust	220kgf

Launch and Recovery System (LARS)

Type	Gantry
Manufacturer	Ocean Works Asia
Classification Society	ClassNK
SWL	2500kg

Umbilical / Tether

Manufacturer	Nexans
Outer Diameter	44.1mm
Length (max.)	1000m
Type	Power, Fiber Optic, and STWP
Decklead	30m

Survey Interface

MacArtney EMO Domino - 7 MKII Subsea Multiplexer
2 x SD video and 2 x HD video channels
9 x RS 232 @ 120k baud rate
2 x RS 485 @ 5M baud rate
2 x Gig Ethernet channels
1 x Responder trigger

Tetsu-7 ROV System Dimensions (L x W x H x Wt.)

ROV	2.72m x 1.67m x 1.60m x 2100kg
LARS	7.30m x 2.90m x 3.27m x 13,540kg
Combined ROV/LARS Transport Weight	15,640kg
Umbilical Winch	2.10m x 2.30m x 1.90m x 4200kg
Spare Tether Drum	2.72m x 2.25m x 2.72m x 4500kg

Vehicle Configuration

Thruster Horizontal	2 x 300mm (Sub-Atlantic)
Thruster Vertical	4 x 300mm (Sub-Atlantic)
Control System	PLC Linked Graphical User Interface (GUI)
Auto Functions	Heading, Depth, Altitude
Telemetry / Video	2 x Fibers in use 2 x HD video channels 6 x SD video channels
Cameras	1 x Color zoom camera 1 x SIT or low-light-level camera 2 x Black & white cameras
Pan / Tilt	2 x Tritech
Lights (max.)	8 x 80w dimmable LEDs
Sonar	Tritech Super SeaKing
Depth	Digiquartz +/- 0.01%
Heading	FOG
Altitude	Tritech PA500
Doppler Velocity Log	RDI 600 DVL
Main Hydraulics	200bar @ 230lpm
Port Manipulator	5 Function Schilling Rigmaster
Stb Manipulator	7 Function Schilling Orion
2 Ports Servo Valve Spare for Opt. Tooling (Sub-Atlantic)	
4 Solenoid Spare Ports Valves for Opt. Tooling (Sub-Atlantic)	
Emergency Xenon Flasher and RF Locating Beacon	

Control Container

Safe Area 10ft Control Cabin with a Pilot Control and Co-pilot station. Fitted with lighting, air conditioning, 19 inch rack and monitors.

Video Recorder (Main)	Digital Edge DVR
Video Recorder (Backup)	HDD/DVD Recorder

Power Requirements

440 VAC 3-Phase @ 60 Hz

Generator	400kVA
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Optional Equipment

75mm Cutter	38mm Cutter
Subsea Gyro (Survey Spec.)	
Pipe / Cable Tracker System	
Marine Growth Removal Equipment	
CP and UT Survey System	

Dual Head Profilers, Bathymetric Sensors
Survey Skid, Boom Arms
Dredge Pump, Water Jetting Tool
Fluid Injection Skid, Hotstabs
Class 1-4 Torque Tool