



# Super Spartan



## Work Class Remotely Operated Vehicle

Fugro-Rovtech operate a fleet of 8 Super-Spartan and Spartan work-class ROVs.

The 100HP *Super-Spartan* is an upgraded version of the highly successful 75HP *Spartan* design that has formed the core of our North Sea work class fleet for many years. All *Spartan* systems will eventually be upgraded to the 100HP *Super Spartan* design as part of a long term rolling upgrade programme.

The vehicles are depth rated to 1000m-or 2000m and are deployed by either a Crane or 'A' Frame.

All systems feature an armoured umbilical and a top-hat type Tether Management System (TMS) with a minimum of 150 meters of useable tether.

With improved propulsion performance provided by the increased hydraulic power coupled with new 4-bladed 12" thrusters, the *Super-Spartan* is designed to satisfy the majority of day-to-day work class ROV requirements.

The Super Spartan systems are the optimal solution for a wide range of duties:-

**Pipeline Inspection** - The system is easily fitted with a pipeline survey skid and capable of handle all the required survey sensors.

**Drill Support** - On both Semi-submersibles and Jack-ups, being capable of operating all completions tooling including dual point docking TDU's, while minimising deck space requirements and optimising power

**Construction Support** - Providing the ideal compact solution for plough support, pipe lay support and remote subsea tie-ins.

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Turkmenistan  
United Arab Emirates  
United Kingdom  
United States  
Venezuela  
Vietnam

# Super Spartan

## Work Class Remotely Operated Vehicle

### Dimensions

Length	2.5m
Width	1.5m
Height	1.6m
Weight	2100/2250 kg
Depth Rating	1000m (2000m optional)
Payload	50 Kg
Frame	Aluminium alloy space frame
Pods	Single Electronics Pod Buoyancy Syntactic Foam
Manipulators	1 x 5 Function 1 x 7 Function
Umbilical	Armoured Umbilical
Deployment Method	Tether Management System
Launch Method	Crane or 'A' Frame
Total Deck Weight	42 Tonnes (Crane Option)

### Hydraulic/Electronic

Electric Motor input	120 HP
Electric Motor output	89 kW
Thrusters	12" SEL Hydraulic Thrusters 4 x Horizontal Vectored at 45° 2 x Vertical
Hydraulic pump	100 SHP
Electric Input	3000V, 3 phase - main 1000V, 1 phase - instrument

### Performance

Bollard Pull	Fore/aft	650 Kg
	Sideways	650 Kg
	Vertical	600 Kg
Speed	Fore/aft	3.7 knots
	Sideways	2.7 knots
	Vertical	2.4 knots

### Standard Equipment Fit

Manipulators	1 x TA9/40, 7 Function 1 x TA16, 5 Function Grabber (Hydrus Digital Resolver Option)
Cable Cutter	Fitted for 1¼" diameter wire
Cameras	1 x Colour CCD Camera 1 x SIT Black & White Camera 4 x Other Cameras - Optional
Sonar	Sonavision or Ocean Tool
Lights	Up to 6 x 250w
Pan & Tilt	1 x PSSL Hydraulic
Depth Gauge	Digi-quartz
Compasses	1 x AIM 200 gyro 1 x Flux-gate
Pitch & Roll Sensor	Penny & Giles (2 off) Tooling Outlets 2 x Auxiliary outlets fitted
Auto-functions	Auto-depth Auto-head Auto-roll

### Umbilical

Type	Armoured Fibre Optic
Length & Diameter	Up to 1600m/35mm
Breaking Strain	500 Kn
SWL	60 Kn
Cores	16 x Power 6 x Fibre 50/125 4 x Quad RG108

### Umbilical Winch

Dimensions	Length 3.2m Width 2.4m Height 2.4m
Weight	16 tonnes (incl. umbilical)
Spooling	Level wind gear fitted
Capacity	Up to 1600m of 35mm Umbilical
Line-pull	9 tonnes bottom layer

### Integral Power Pack

Electric Input	45 kva 440v 3 phase
Hydraulic Output	To drive winch, crane and vehicle deck pack.

### Jib Head Pulley

Rating & Diameter	7 tonne SWL/1200mm
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### Surface Controls

Transformers	3.4Kv Main - 180 KVA 2.2Kv Instruments - 10 KVA 1Kv TMS power - 7.5 KVA 1Kv TMS Instruments - 1.5 KVA
Power Dist. Panel	Fitted LIMS for Power Safety
Control Console	19" racks, PC Based Twin Processor, Joystick & Self Diagnostics, 5 Monitors, 2 SVHS Video Recorders, 3 Channel Video Overlay
Auto-functions	Auto-depth, Auto-head, Auto-roll, Auto-pitch/Auto-altitude (optional)

### Control Shack

Dimensions	Length 6.1m Width 2.44m Height 2.59m Weight 10.5 tonnes
Rating	Zone 2 A60 (optional)
Air Conditioning	Fitted

### Stores Shack/Garage/Workshop

Dimensions	Length 3.96m Width 2.4m Height 2.4m Weight 7 tonnes
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### Launch and Recovery System

A-Frame	
SWL (air/water interface)	6600kg
SWL (vehicle at depth)	11400kg
Operating temperature	-10°C to +40°C
Over-boarding reach	3000mm
Distance between legs	2400mm
Dimensions Length	6.5m
Width	2.9m
Fitted with docking snubber - fully rotating	

### Crane

Manufacturer	Effer Marine Cranes
Dimensions	Length 2.4m Width 2.4m Height 2.8m
Weight	10 tonnes
Max. Load Moment	65 tonne metre (628 kNm)
Lift Capability	Spartan + TMS in Seastate 6

### Tether Management System (TMS)

Dimensions	Diameter 2.0m Height 2.1m
Weight (incl. Tether)	2400kg in air 1500kg in water
Depth Rating	2000m
Load Capacity	4000kg incl. self weight in seastate 6
Tether Capacity	220m of 46mm lether
Spooling	Diamond Bar
Drive Pulley	Hydraulically driven with 'tether paid out' sensor
Structure	Welded mild steel
Video/light	1 x Camera 2 x 250w lights
Electric Input	1 KVA 3 phase 6 KVA (Hydraulic Power Pack) 1 KVA 1 phase 1.5 KVA (Instruments)

### Tether

Length	220m
Useable Length	210m
Diameter	46mm ± 1mm
Breaking Strain	76 kN
Depth Rating	1000m (3000m option)

### Surface Components

Transformers	1 x 7.5 KVA 3 phase for HPP 1 x 1.5 KVA 1 phase for instruments
Control Panel	Mounted in 19" Spartan rack

### Spartan Services

Control Cabin	180KVA, 440V, 3 phase (motor rated)
Winch	55 KVA, 440V, 3 phase (motor rated)
Water	For wash down
Instrument Air	For Purging Slip Ring and Dampers

### Fugro-Rovtech Limited

Denmore Road, Bridge of Don, Aberdeen, AB23 8JW

Tel: +1224 257600

Fax: +1224 853900

[www.fugro.com](http://www.fugro.com)



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