



Q-TRENCHER 1000



ENGINEERING
EXCELLENCE
UNDERWATER

Q-TRENCHER 1000

The Q-Trencher 1000 ROV provides high power trenching capability for the burial of cables, umbilical and small diameter pipes up to 3m deep. The ROV uses variable high flow or high pressure jetting to optimise the trenching to suit the conditions. It can also deploy a rear eductor to enhance burial of large diameter product. With its high thrust, the ROV can perform rapid post lay survey. It can also be fitted with a suite of tools for maintenance operations. SMD offer a turnkey, integrated solution including SMD designed high sea state LARS and umbilical system.

FEATURES

- 1000hp of installed power
- up to 3m max trench depth capability
- Up to 4 knot swimming for survey
- 2000m maximum water depth
- Optional rear eductor for large product burial
- Optional track modules for hard ground trenching
- Variable high flow or pressure jetting for optimized trenching
- Cable maintenance tools package incl. manipulators, cable cutter and clamp
- DVECS robust distributed control platform provides reliable, ergonomic operations and good diagnostics
- Proven Curvetech™ components throughout
- Range of SMD designed A-frame based LARS for standard and high sea states

SMD CUSTOMISATION SERVICE

SMD understand that every customer is different and therefore have individual needs from their systems. In order to meet your specific requirements SMD can customise our vehicles using our range of standard components to suit your preference and performance requirements.

CONTACT US

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Q-TRENCHER 1000

SYSTEM SPECIFICATIONS

GENERAL

Depth rating	2000msw
Dimensions	
Length	50m
Width	42-50m
Height	34m
Weight in air (skids)	200te
Submerged Weight	Buoyant
Max Bollard Pull	2100kg

PERFORMANCE

Vertical	15 knots
Fore / Aft	40 knots
Lateral	20 knots
ROV Power	1000hp (750kW) total: 2 x 500hp (375kW) 4-pole HPUs

THRUSTERS

Vectored / Forward	4 x Curvetech HTE500
Side	2 x Curvetech HTE500
Vertical	4 x Curvetech HTE500

MECHANICAL

Construction	High strength aluminium space frame
Buoyancy	Syntactic foam with macrospheres

JETTING SYSTEM

Main Jet	
Tool Configuration	Twin leg jet tool with fwd/downward facing jets (sub seabed) and cable depressor
Trench Depth	0 to 30m standard
Width Control	50mm to 400mm- remotely variable 250 to 600mm in pipe trenching mode
Water Supply	twin hydraulically driven water pumps Variable 0 to 2500m ³ /hr and 4 to 6 bar- low pressure Variable 0 to 1000m ³ /hr and 10 to 15 bar- high pressure
Forward Jet	
Tool Configuration	Twin jet device (above seabed) which jets down either side of product
Trench Depth	up to 10m (soil dependent)
Water Supply	250-500m ³ /hr
Deployment	hydraulically actuated

OPTIONAL TRACK MODULES

Construction	Bolt on modules with hydraulically driven plastic track plates on standard running gear
Speed	0 to 2km/hr

OPTIONAL DREDGE SYSTEM

Configuration	Twin leg aft mounted eductor with hydraulically driven dredge pump
Dredge Depth	0 to 20m standard

CABLE TRACKING PACKAGE

Cable detection and survey	
Tone detection	TSS350
Pulse Induction	TSS440
Other	O/A Sonar and cameras
TSS440 Deployment	hyd actuated frame

CABLE TOOLS PACKAGE

Manipulators	2 x 7 function
Cable Cutter	up to 100mm
Cable Clamp	up to 100mm

SUBSEA ELECTRONICS

Electronics Pod	One atmosphere pressure vessel
Depth Rating	2000m
Communication	Fibre Optic MUX
Vacuum Port	Connection point for vacuum checking of seals in faceplate built in spare RS232, RS485, Ethernet 110V, 24V
Spare channels	

SUBSEA SURVEILLANCE

Cameras	up to 8 cameras (HDTV optional)
Lamps	up to 12 x 250W, (2 x 400W HMI optional)
Pan and Tilt	up to 6 x robust 24V P&T units
Sonar	Tritech/ Kongsberg
Gyro	Fibre Optic
Doppler Velocity	
Log (Optional)	Workhorse Navigator
Profilers (Optional)	Tritech/ Kongsberg/ Multi-beam
Acoustic	
Positioning (Optional)	to suit vessel

OTHER EQUIPMENT

Control System	20ft ISO container Active chair or console layouts SMD DVECS system
Power System	housed in 10ft ISO container
LARS	Sea State 5 A-frame with umbilical lift Option for Sea State 7 with cursor deployment
Umbilical Winch	Sea state 5 umbilical lift Option for Sea State 7 with slack accumulator
Deck HPU	2 x 150kW

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