



# Specification Data Sheet

## Rotech T8000 Subsea Excavation System

### Description

The Rotech T8000 is one of a range of patented subsea excavation tools operated by Rotech Subsea Limited. The Rotech tools are currently the “state of the art” in mass flow technology, excavating with a high speed but low pressure column of water. Key advantages include:

- Non-contact method of excavation providing high levels of safety for sensitive subsea structures and pipelines.
- Excellent performance in wide variety of seabed materials, including stiff clay.
- Straightforward deployment with minimal deck space requirements.
- Speed and ease of mobilisation. Everything is designed to fit into 20' containers and has been flown to several projects in the past.

### Uses

The Rotech T8000 can be used for a wide variety of subsea excavation requirements, such as:

- Pipeline, umbilical and cable trenching, pre-trenching or deburial.
- Pipeline free-span remediation.
- De-burial of subsea templates, well-heads or jacket members, from seabed materials, mud slides or drill cuttings.
- Salvage of dropped equipment or vessels.
- Removal of rock dump.
- Site preparation for subsea installations
- Civil excavation works, including harbour/berth clearance, channel maintenance and site preparation for sea defense works.

### Excavation Method

The Rotech T8000 excavation tool generates a large volume column of water travelling vertically down to the seabed at a velocity of up to 10 meters per second. The effect of up to 8 cubic meters of water per second hitting the seabed at this speed creates a powerful excavation force capable of breaking up stiff clays.

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## Performance

Rotech T8000 Performance Rates			
Flow Rates	0 to 8 m <sup>3</sup> /sec	Exit Velocity	0 to 10m/sec
Operating Depths	5m to 250m	Thrust	0 to 6 tonnes
Soil capabilities	Sand, mud and clay with a shear strength up to 60kPa.		

## Control

The patented shape and impeller alignment of the Rotech T8000 eliminates reactive torque, giving the tool unparalleled stability in the water – without clump weights. A sonar system is mounted on the Rotech T8000 to provide a real-time profile of the excavation effect immediately under the tool. The tool is powered by a compact hydraulic power pack rated to 760 litres/min @ up to 300 bar, which provides immediate control of the excavation effect.



The combination of a stable tool, providing a profile of the excavation as it happens, combined with instant controllability allows the Rotech T8000 to be used for projects requiring the highest levels of accuracy and control.

## Equipment Dimensions & weights

No of units	Description	Length(m)	Width(m)	Height(m)	Weight(kg)
1	Rotech T8000 subsea excavation tool	5.9	2.0	3.2	8500
1	Containerised hydraulic power pack 760l/min @ 300 bar	6.3	2.4	2.6	15250
1	Hydraulic hose reel winch c/w 3 x 160m umbilical hoses	3.0	2.7	3.0	9000
1	Container of spares and tools inc 2 x Reson 9001 Seabat multi-beam sonar systems.	6.3.	2.4	2.6	12000