

T-1200

Purpose Built Jet Trencher



T-1200 JET TRENCHER

THE T-1200 A PURPOSE BUILT jet trencher that has significantly more jetting power – 1,200 hp – and is rated for 3,000 m.

MAIN CHARACTERISTICS

Depth Capacity	
	3,000 msw
Maximum Speed (Free Flying)	
Forward	2.8 knots
Lateral	2.0 knots
Maximum Speed (Tracked)	
Forward	2,500 m/hr
Dimensions (Maximum)	
With Over Buoyancy	6,095 mm
Width Over Tracks	5,600 mm
Length	9,150 mm
Height	5,164 mm
Vehicle Weight – In Air (200 Kg Payload)	
Tracked Mode Configuration	30,500 Kg
Skid Configuration	27,500 Kg
Vehicle Weight – In Water (200 Kg Payload)	
Tracked Mode Configuration	1,000 to 1,500 Kg
Skid Mode Configuration	300 to 1,000 Kg

PROPULSION SYSTEM

Proportionally controlled thrusters
4 x 500 mm horizontal thrusters
4 x 500 mm vertical thrusters

TRACK DRIVE SYSTEM

2 x underwater tracks, hydraulic driven
Able to track in > minimum soil strength – 3.5 kPa shear strength

HYDRAULIC MANIFOLDS

2 x ROV, thruster control manifolds (proportional valves for pilot control of thruster motor)
4 x ROV, 12 station manifolds (12 function solenoid / proportional valve manifold)

CAMERA AND LIGHTING SYSTEM

1 x low light camera
3 x color cameras with focus and zoom
3 x mono inspection cameras
16 x LED lights
2 per dimming circuit standard

DEPTH SENSOR

High accuracy sensor, 0.1% over full scale for depth
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HEADING SENSOR

Octans gyro
HMR 3,000 compass

AUTO FUNCTIONS

Heading
Depth
Altitude
Product tracking

ELECTRICAL POWER SYSTEM

2 x 281 kW/375 hp electric motor, controlled by variable speed drive (VSD) surface transformers, directly coupled to 2 hp water pumps
1 x 281 kW/375 hp electric motor, coupled to a hydraulic pump providing power for LP water pumps, motive power and auxiliary functions

CONTROL SYSTEMS

Utilizes the evolutionary ICE™

Integrated control engine

Fully redundant Windows® based HMI computers

Dedicated real-time controllers

Intuitive graphic user interface (GUI)

Advanced graphical interactive diagnostics

User configurable GUI

Ergonomic pilot / co-pilot control consoles

Using touch screen control interfaces for diagnostics and other secondary functions

4 x 40 in HD plasma video wall

DATA TRANSMISSION

Single mode fiberoptic video and data multiplexer

8 x real-time video channels available

4 x full duplex RS232 @ 115 kbps data channels

4 x full / half duplex RS485 / 422 / 232 channels

SENSORS

Multi beam imaging sensors

Radio beacon

Product location / tracking system (TSS 440/350) (or other tracking device)

Strobe flasher

LAUNCH AND RECOVERY SYSTEM

Capability	Sea state 5
Capacity	3,300 m
Outreach	10 m (tbc)
Lifting Speed	30 m / min on bottom later

EDUCATION AND BACKFILL

An educator dredge will be fitted complete with integral backwash jets to allow selection of dredge or backwash operation remotely

A back fill tool is fitted to collapse the trench wall as a post burial operation

REAL-TIME BURIAL DEPTH INDICATOR (OPTIONAL)

Rear mounted, hydraulically deployed with variable control and feedback product monitoring stinger to provide calibrated real-time (continuous) burial depth indication

PRODUCT BURIAL CAPABILITIES

Product Size Range	100 to 915 mm diameter (depending on soil conditions and burial depth)
Cohesive Soil	Up to 125 kPa (product specification and burial depth dependent)
Non-cohesive Soil	Sand, silt and gravel to 30 mm
Burial Depth	1.0 m to 3.0 m (soil and product dependent)
Burial Speed	25 to 780 m / hr (soil / burial depth / product dependent)

JETTING SYSTEM

1 m, 2 m, 3 m burial swords

HP WATER PUMPS

HP water pressure flow and jetting sword nozzle configuration will be engineered per execution of each project and dependent of soil conditions, project specification and burial requirements

To optimize vehicle performance, detailed setup of the trencher will form part of the project procedure package

Total HP Output	17,500 LPM at 16 bar maximum pressure 300,00 LPM at 8 bar
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HP WATER PUMP CURVE



