

i-Trencher Trenching System



i-Trencher TRENCHING SYSTEM

THE I-TRENCHER is specifically designed to trench depths up to two meters in one pass. It has the ability to match the rock-cutting performance of pipeline plows while providing greater control without the need for high bollard pull TSV.

MAIN CHARACTERISTICS

Maximum Dimensions	
10.0 m wide	
6.1 m high	
12.6 m long (landing)	
17.4 m long (deployed)	
Maximum Weight in Air	
85 t in trench mode	
80 t in open trench mode	
80 t in backfill mode	
Weight in Seawater	
40 t in trench mode	
35 t in open trench mode	
35 t in backfill mode	
Depth Rating	1,500 m
Environmental	
Air Temperature Range	40° C to -15° C
Humidity	100%
Seawater Temperature	35° C
Vehicle Power	
1,250 kW	
Maximum Cut Depth	
2 m	

PRODUCT HANDLING

Cables	80 mm diameter minimum
Umbilicals	80 mm diameter minimum
Rigid Pipe	Up to 16 in diameter
Flexible Pipe	Up to 18 in diameter
Piggybacks	Maximum clearance 800 mm diameter

TRACTION AND BOLLARD SPECIFICATIONS

Thrusters	2 x 850 kgs (bollard)
Traction	200 kN Subject to ground conditions
Ground Pressure	Minimum 10 kPa soils
Speed	1,500 m / hr Subject to ground conditions

SURVEILLANCE

1 x pipe tracker
1 x obstacle avoidance sensor
2 x trench profile sonar
1 x altimeter
1 x hydrophone
1 x depth transducer
2 x synchronized dual head seabats
1 x responder
1 x magnetic compass
1 x gyroscope
8 x pans and tilts
10 x cameras
10 x lights

TOOL SPECIFICATIONS

Burial Tools

2 x vertically mounted trenching digger chains

Proven tungsten carbide conical pick design

Eductors

Minimum 2, maximum 4 dredge pumps, total power 800 kW
Capable of passing 220 mm diameter objects

Backfill

2 x horizontally mounted digger chains and spoil blades

Open Trench

3 x digger chains, 1 x vertically mounted

2 x angled mounted to suit required profile

Proven tungsten carbide conical pick design

Rock Cutting

2 x vertically mounted digger chains

Proven tungsten carbide conical pick design

Roller Boxes

2 X 1,000 kN rated

Pipe Grabs

2 X 1,000 kN rated

Lift Point

Bucket and bullet for steel lift rope

2 x spring load latches

SPEED

Trenching Conditions

Speeds in Clay <20 kPa >550 m / hr

Speeds in Clay 20 – 200 kPa 360 to 500 m/hr

Backfill Speed 200 to 550 m/hr

Speeds in Clay >200 kPa 200 to 400 m/hr

Backfill Speed 50 to 35 m/hr

Speeds in Loose Sand 500 m/hr

LARS

A – frame

Safe Working Load 90 t at sea state 5

Overboard Reach 7.1 m

Inboard Reach 8.5 m

Distance Between Legs 12 m

Weight 75 t

Snubber Telescopic Distance 1.4 m

Umbilical Winch

Dimensions 4.5 m long
6.5 m wide
4.4 m high

Winch Weight 45 t

Umbilical Weight 21 t

Gross Weight 60 t

SWL 25 t

Umbilical Length 1,800 m double armored

Lift Heave Compensator

Safe Working Load 90 t at sea state 5

Range 8 m

Weight 30 t

Lift Winch

Dimensions 4.3 m long
6.4 m wide
3.4 m high

Winch Weight 45 t

Wire Weight 41 t

Gross Weight 86 t

SWL 90 t at sea state 5

Wire 1,700 m

Power Van

Enclosed cabin to house transformer and HV supplies

Size 40 ft ISO container

Power Requirement 440 v, 3 ph, 2.3 MVA

Complete System Power Requirement 4.5 MVA

Manning 2 x superintendent
2 x supervisors
2 x pilot techs



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