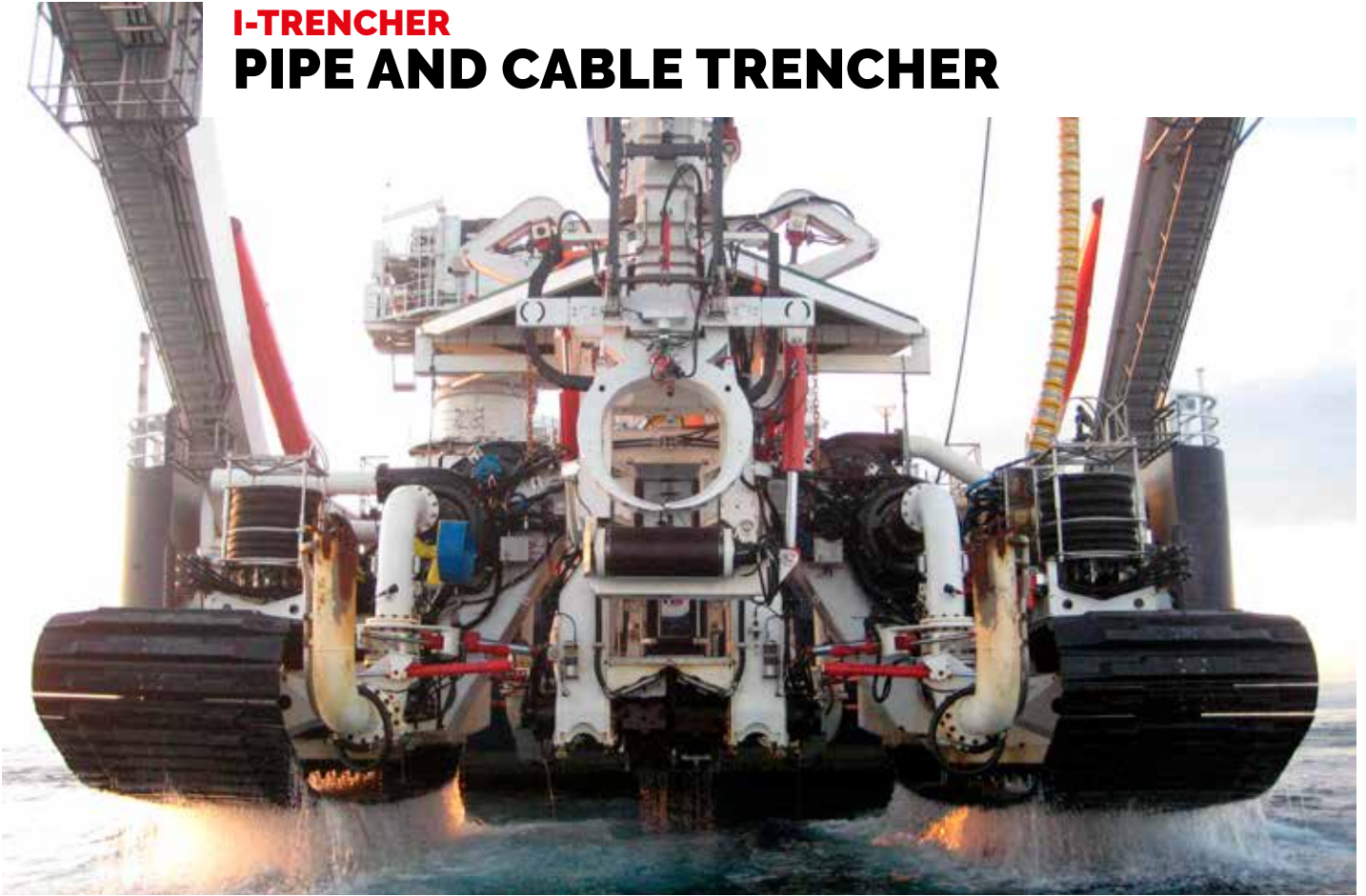


I-TRENCHER PIPE AND CABLE TRENCHER



All rights reserved. Reproduction in any form or by any means is not allowed, without prior permission in writing from IHC Merwede Holding BV.

PRODUCT OVERVIEW

Royal IHC designed and built the i-Trencher system for Canyon Offshore. The system includes the 1.25MW trenching vehicle, a launch and recovery system and a heave compensation system.

The system is used for high performance trenching in hard soil and deep waters and can be configured in a number of different operating modes to allow a variety of trenching and backfilling operations to be completed.

The i-Trencher is designed to reliably outperform existing trenching systems and can excavate a 2m deep trench. It has been used to successfully trench a wide range of products including pipelines, umbilicals and subsea power

CUSTOMER BENEFITS

- increased operational window
- faster trenching in wider range of soils
- greater flexibility in route planning
- turnkey supply of equipment and vessels
- responsive 24/7 worldwide service
- attractive financing available.

KEY TECHNICAL FEATURES

- operates in high currents and waves
- high sea state active heave compensated LARS
- ability to perform remedial work
- configurable in field for backfill operations
- ability to create open trench for pre-lay campaigns
- dedicated low pressure backwash subsystem.



**THE TECHNOLOGY
INNOVATOR.**

ROYALIHC.COM

BASE VEHICLE PLATFORM

Dimensions	Length 12.6m (landing) 17.4m (deployed) Width 10.0m Height 6.1m
Weight in air	85Te (trench mode) 80Te (open trench mode) 80Te (backfill mode)
Weight in seawater	40Te (trench mode) 35Te (open trench mode) 35Te (backfill mode)
Water depth	1,500m
Air temperature	-15°C to 40°C
Sea temperature	35°C
Installed Power	1,250kW 4x 300kW. 4.2kV 4 pole
Max. trench depth	2.0m
Speed	1,500m/hr (seabed permitting)
Traction	20Te (seabed permitting)
Thrusters	2x 0.85Te
Ground pressure	10kPa soils
Umbilical	1,800m double armoured

PRODUCT HANDLING

Cable	Ø80mm
Umbilical	Ø80mm
Rigid pipe	Ø16"
Flexible pipe	Ø16"
Piggybacks	Ø800mm
Trench width	0.5m
Maximum product	Ø400mm (including CPS)
Product route MBR	5.0m
Depressor MBR	3.0m (optional)
Product lifters	2x 100Te SWL
Roller boxes	2x 100Te SWL



SURVEILLANCE (TYPICAL)

Pipe tracker	TSS340
Sonar	2x obstacle avoidance 2x trench profile 2x dual head Seabats
Heading	Gyro and compass
Cameras	10 off low light, colour etc
Lamps	10 off
Pan & tilts	8 off
Responder	1 off
Altimeter	1 off
Water depth	1 off
Hydrophone	1 off

TRENCHING SYSTEM

Chain cutter	2x vertical chains Tungsten carbide picks
Eductors	up to 4x dredge pumps Will pass Ø220mm objects
Backfill	2x chains (horizontally mounted spoil blades)
Open trench mode	1x vertical chain cutter 2x angled chain cutters

LARS

A-Frame	90Te SWL
Sea state	5
Snubber travel	1.4m (telescopic)
Heave compensator	90Te
Sea state	5
Travel	8m
Lift winch	90Te
Sea state	5
Wire	1,700m
100Te+ AHC crane	
Configuration	Motion damped curser 4x cylinders
Sea state	4 (Hsig = 2.0m)

All details are typical. Please contact uk@royalihc.com for any client specific requirements.



**THE TECHNOLOGY
INNOVATOR.**

ROYALIHC.COM