

NBNMS

Specification
sheet

HD3 Plough



HD3 Plough

The HD3 flexibles plough provides a high performance trenching solution for large diameter flexible umbilicals and power cables. Using patented technology, the plough is designed to minimise pull force requirements and provide effective trenching capability up to 3.3m depth and up to 3.0m of cover. The diverless loading system allows post lay burial in deepwater.

Specifications

Depth rating	500msw
Dimensions	Length 16.0m Width 6.5m Height 7.0 m
Weight in air (STD)	45Te
Submerged weight	39Te
Max tow load	150Te

Performance

Trench depth	Variable to 3.3m
Max cable diameter	30 to 300mm
Min cable bend radius	5.0 m
Steering	+/- 12 degrees

Mechanical

Construction	High strength steel chassis
Wear parts	Replaceable wear-resistant steel
Other	Stainless steel fittings & housings

Trenching system

Configuration	Passive parallel sided share
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Jetting system (optional)

Configuration	Plough share and knife top jetting
Power	1 x 265kW
Water supply	1 x 800m ³ /hr

Diverless subsea loading/unloading

Crane	12tm subsea crane
Slewing depressor	To assist cable into share
Front bellmouth lines	Load cable into front bellmouth
Jetting thruster	To assist landing over cable
Tipping though	To assist with unloading
ROV intervention panel	Emergency unload

Hydraulic system

Installed power	15kW
Cylinders	Smart heavy duty marine
Valves	Directional & counterbalance
Valves packs	Stainless steel, oil compensated

Manifolds, pipes & fittings	Stainless steel
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Hoses	Multi-spiral flexible hoses
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Subsea electronics

Electronic pod	1 atmosphere pressure vessel
Depth rating	500m
Test pressure	1.25 x working pressure
Data transmission	Fibre optic multi-plexer

Subsea surveillance

Cameras	X 3 (HDTV optional)
Lamps	Up to 6 x 250V Dimmable LED subsea lamps

Pan and tilt	3 x 24V P&T units
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OA sonar	Kongsberg/Tritech
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Subsea Instrumentation

Heading	Gyro
Altitude	Echounders
Trench & product sensing	Profiling sonars
Pitch & roll	Inclinometer
Load	Shear pin loaded cell
Displacement	In-cylinder transducer
Distance	Rotary encoder
Pressure transducers	Hydraulic system pressure Water jet pressure
Hydrophone	Hydros
Wear indicator	Share point

Other equipment

Control power system	20ft ISO container, SMD DVEDCS II or DVECS S system
Umbilical system	1000m umbilical & 5Te rendering winch

Options

A-frame	N/A
Deck HPU	Upgrade available
Plough beach ops kit	Radio telemetry Stunt control box Aft pull beach skid (beach power required)