



VARIABLE MULTI-PASS PLOW



ENGINEERING
EXCELLENCE
UNDERWATER

VARIABLE MULTI-PASS PLOUGH

Building on SMD's reputation for the continuous development of their products, the VMP introduces further advances on the next generation AMP pipe plough by offering remotely variable multi-pass capability. This allows the operator to remotely adjust the depth during trenching. This, along with the advances introduced earlier on the AMP, Hi-Tow points and the active share track make the VMP the most advanced pipe trenching technology in the world. As per the AMP, 500te trenching capability is available from only 350te vessel pull.

FEATURES

- 350 tonne maximum bollard pull capability
- 2m maximum trench depth capability with multi-pass
- Hydraulic power steering
- 1000m maximum water depth
- Share jetting system to reduce tow force requirements
- 1460mm maximum product diameter
- 2 x 75te pipe handling capacity
- Large pitch capability
- Hi-Tow points reduce tow force requirements
- Active share track reduces tow force requirements
- Hydraulic powered steering
- Comprehensive instrumentation and surveillance

SMD CUSTOMISATION SERVICE

SMD understand that every customer is different and therefore have individual needs from their systems. In order to meet your specific requirements SMD can customise our vehicles using our range of standard components to suit your preference and performance requirements.

CONTACT US

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VARIABLE MULTI-PASS PLOUGH

SYSTEM SPECIFICATIONS

GENERAL

Depth rating	1000msw
Dimensions	
Length	214m
Width	1175m
Height	965m
Weight in air (skids)	180te
Submerged weight	155te
Max tow load	350te

PERFORMANCE

Trench depth	First pass – 20m Second pass – 25m
Maximum product diameter	1460mm
Soft ground capability	5kPa at full trench
Steering	±8 degrees

MECHANICAL

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

TRENCHING SYSTEM

Main share	Passive blades
Fixed mouldboards	25 degree slope spoil heaps either side of the trench
Share track	Reduces tow forces up to 80te down force up to 1400m/hr track speed
Optional jetting	150kW Plough share jetting Upgrade to umbilical and winch Upgrade to power and control system

MULTI-PASS SYSTEM

Configuration	Hydraulically actuated Variable height/angle mouldboards Clear spoil for skid path on first pass allowing second pass capability
Multi-pass range	135 to 25m

BUOYANCY SYSTEM

Configuration	2 off steel, open bottomed, removable tanks, air fed from surface
Net buoyancy	50te each (100te combined)
Tank air weight	6te each
Valves	Hydraulically actuated vent valves Vacuum breaker valve

PIPE HANDLING

Configuration	Front and rear roller cradles with pipe lifters for diverless post lay loading and unloading
Pipe outside diameter (per cradle)	
Light duty	75 – 600 mm single roller
Heavy duty	600-1420 mm V-roller
Pipe roller load (per cradle)	
Light duty	30te
Heavy duty	75te
Pipe lifters (each)	75te
	Maximum 17m down reach into trench

HYDRAULIC SYSTEM

Installed power	150kW
Cylinders	Smart heavy duty marine type
Valves	Directional and counterbalance
Valve packs	Stainless steel, oil compensated
Manifolds, pipes and fittings	Stainless steel
Hoses	Multi-spiral flexible hoses
ROV intervention	Hot stab capability

SUBSEA ELECTRONICS

Electronics pod	One atmosphere pressure vessel
Depth rating	1000m
Test pressure	125 x working pressure

SUBSEA SURVEILLANCE

Cameras	Up to eight cameras (HDTV optional)
Lamps	up to 12 x 250W dimmable LED subsea lamps
Pan and tilt	Up to six 24V P&T units
OA sonar	Tritech / Kongsberg
Profiling sonar	Tritech/Kongsberg/Multibeam
Acoustic positioning	to suit vessel
Gyro (optional)	Fibre optic

OTHER EQUIPMENT

Docking system	200te SWL sea state 5 Docking frame and bullet in 20ft ISO A60 container
Control system	Housed within control system
Power system	typically 4000 buoyant umbilical and 3te SWL winch
Umbilical system	typically 22kW deck mounted
Winch HPU	

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