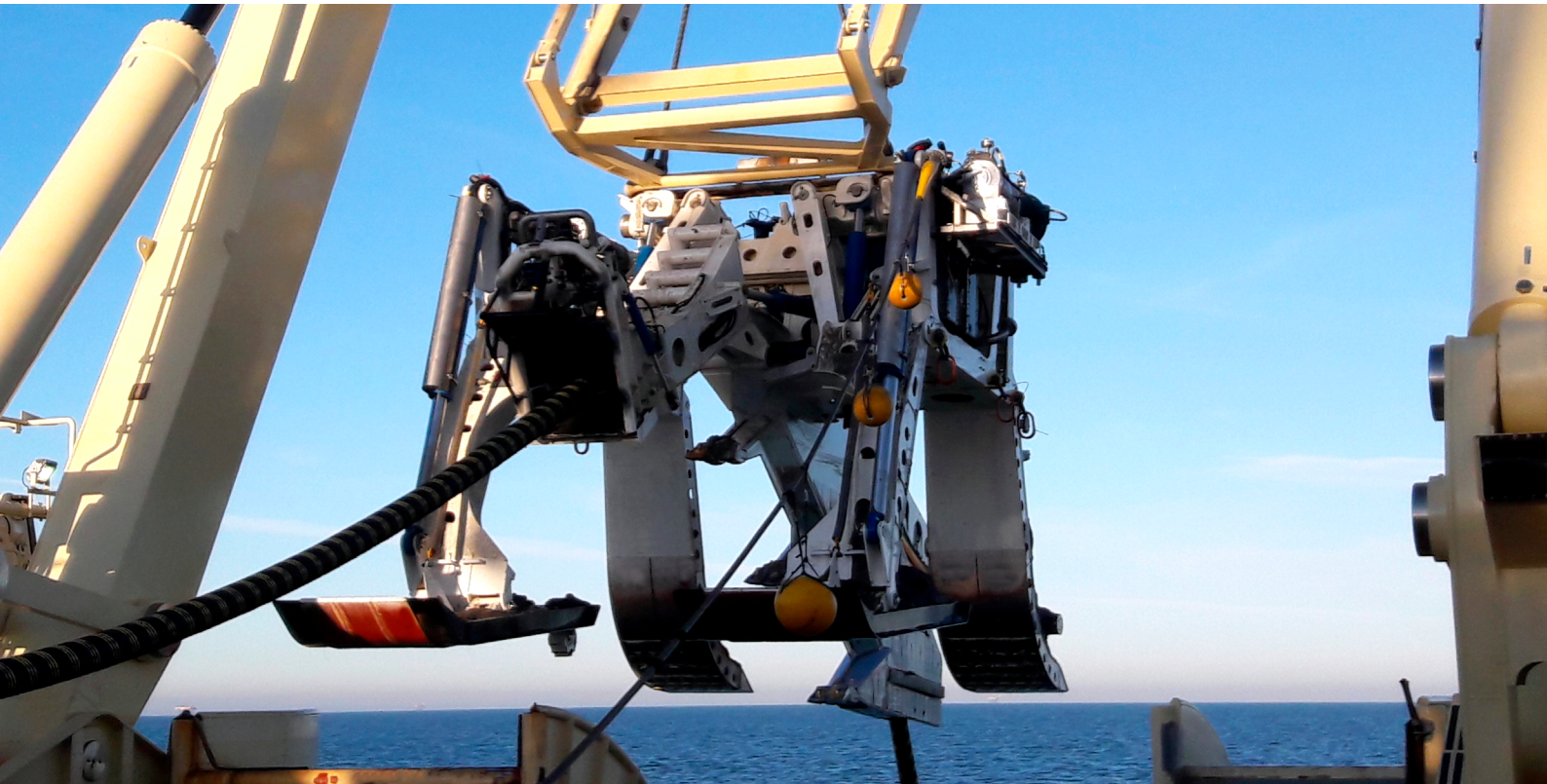


## ACP2

### SPECIFICATION SHEET



#### ADVANCED CABLE PLOUGH

#### KEY FEATURES

The ACP2 is the first plough in the offshore industry fully designed for optimum performance in all areas, but specifically for the safe handling of large diameter power cables.

Incorporating an aggressive share design with multiple forecutters, the ACP2 is unique in its ability to accommodate up to 300mm diameter product with a 5m minimum bend radius and offer both on deck and seabed cable loading / unloading capability. The plough offers variable depth control via hydraulically actuated skids to enable safe burial from 0m to 3.3m. The plough has a powerful 150kW anti-cavitation jetting system capable of operating in water depth starting as little as 0.5m to reduce seabed resistance and tow loads.

Comprehensive instrumentation and surveillance for control and monitoring during ploughing is enhanced by a pivoting bellmouth that allows superior handling of the cable and a reduced cable wrap angle for product safety during launch and recovery. An industry proven mechanical link bridle system is utilised for efficient steering, whilst minimizing plough complexity.

The ACP2 utilises a sophisticated Launch and Recovery system, using a hydraulically dampened, wide angle A-Frame and traversing carriage for superior control during launch and recovery. The tow winch provides hydraulic render up to 150 tonnes, fixed lift lower at 64 tonne safe working load and 5-35 tonne constant tension for fast and reliable tow rope handling during ploughing and launch and recovery operations.

- VARIABLE DEPTH CONTROL TO 3.3M
- AGGRESSIVE MULTIPLE FORECUTTER SHARE DESIGN
- PIVOTING BELLMOUTH FOR IMPROVED CABLE HANDLING
- 150KW JETTING SUPPLY TO SHARE
- UNIQUE LARGE BEND RADIUS OF 5.0M
- SHALLOW WATER JETTING CAPABILITY (0.5M)
- SOPHISTICATED LARS AND TOW WINCH SYSTEM
- SUBSEA LOADING / UNLOADING CAPABILITY

## SPECIFICATION SHEET

### PARTICULARS

<b>MAX. OPERATING DEPTH</b>	0 to 1000m
<b>MAX. CABLE DIAMETER</b>	300mm
<b>PRODUCT MBR</b>	5.0m
<b>MAX. TRENCH DEPTH</b>	3.3m
<b>TOW FORCE</b>	150Te
<b>LENGTH</b>	15.2m
<b>WIDTH</b>	5.4m
<b>HEIGHT</b>	6.0m
<b>WEIGHT IN AIR</b>	44Te

### BURIAL TOOL

<b>SHARE DESIGN</b>	Aggressive multi-tip share design
<b>DEPTH CONTROL</b>	Continuously variable between 0m and 3.3m using actuated front skids and stabilisers
<b>SUBSEA JETTING</b>	150kW patented anti-cavitation water pump delivering high flow, low pressure share tip jetting to reduce seabed resistance starting in wate depths little as 0.5m

### SOIL TYPE

Suitable for a range of soil types, including sand, soft to hard clay and weathered weak rock

### CONTROL & CABLE HANDLING

<b>STEERING</b>	Mechanical link bridle steering system combining efficient tow rope plough steering at +10° whilst minimizing plough complexity
<b>LOADING / UNLOADING</b>	Accommodates subsea crane for subsea loading / unloading
<b>HANDLING</b>	Cylinder actuated pivoting bellmouth and cable trough
<b>DEPRESSOR</b>	Slew functionality for cable loading
<b>INTRUMENTATION</b>	Cable tension - depressor Port & Starboard tow force Lay cabin tension (in chassis over bend plate)

### PLOUGH SURVEILLANCE & POSITIONING

<b>CAMERAS</b>	5x Explorer-Pro, high resolution, monochrome CCD cameras
<b>LAMPS</b>	6 x Bowtech 3200 LED lamps with dimming
<b>OBSTACLE AVOIDANCE</b>	Hi-resolution 2D imaging sonar Tritech Gemini / Kongsberg MS1000
<b>PROFILING SONAR</b>	Tritech Super SeaKing dual frequency profiler for mean seabed level measurement
<b>HYDROPHONE</b>	A hydrophone is provided with an integral pre-amplifier
<b>ACOUSTIC POSITIONING</b>	Interface for Transponder/Responder

### A-FRAME

<b>CONFIGURATION</b>	Hydraulically dampened, wide angle traversing A-frame
<b>SWL</b>	64Te (latched and unlatched load)
<b>SEA STATE</b>	Sea state 5
<b>DIMENSIONS</b>	Outreach approx 13.4m from A-frame leg pivot Clear distance between legs approx 12m
<b>WORKING ARC</b>	45° to 160° from horizontal inboard
<b>FLEETING</b>	Roller and stabilising frame can be moved along cross beam by hydraulic cylinder mounted inside roller. Total fleeting distance 3.8m

### TOW WINCH

<b>CONFIGURATION</b>	Open Frame
<b>TOW WIRE</b>	1500m
<b>HOIST SPEED</b>	30m/min with 60Te load
<b>RENDER</b>	Up to 150Te @ 100m/min
<b>CONSTANT TENSION</b>	5 - 35Te