



# COMPACT 3.0 TO 3.5 HARD GROUND TRENCHER BT2100



ENGINEERING  
EXCELLENCE  
UNDERWATER

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The BT 2100 draws on SMD's experience of track driven vehicles, trenching and cable handling subsea to provide a soft to hard ground burial solution in one neat package. BT2100 is a fully amphibious vehicle and comes equipped with interchangeable tooling cassettes including a powerful chain cutter, dredge pump and jet legs. This well proven chain cutter deployment system allows post lay burial of cable up to 300mm and 5.0m MBR.

## FEATURES

- Pre and post lay cable burial cassettes
- Fore dredge pump transporting
- 600m<sup>3</sup>/hr solids
- 300mm max cable/umbilical diameter with read swords
- Comprehensive instrumentation and surveillance

## SMD CUSTOMISATION SERVICE

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

## CONTACT US

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## SYSTEM SPECIFICATIONS

### GENERAL

|               |         |
|---------------|---------|
| Depth rating  | 1000msw |
| Dimensions    |         |
| Length        | 14.5m   |
| Width         | 7.5m    |
| Height        | 5.5m    |
| Weight in air | 70Te    |

### PERFORMANCE

|                        |   |
|------------------------|---|
| Trench Depth (jetting) | 3.0m max  |
| Max Cable Diameter     | 300mm   |
| Speed                  | 0-250m/hr   |
| Soil Types             | All sands<br>Clays from 10-1000MPa<br>Rock from 1-40MPa<br>Soft ground capability<br>(with buoyancy) 12-20kPa |
| Installed power        | 1600kW (total)  |

### MECHANICAL

|              |  |
|--------------|--|
| Construction | High strength steel chassis              |
| Wear parts   | replaceable wear-resistant steel         |
| Other        | Stainless steel fittings<br>and housings |

### TRENCHING SYSTEM

|                       |  |
|-----------------------|--|
| Configuration         | Single vertical hyd. drive chain<br>cutter with separate rear jet tool |
| Trench profile        | 2.0 & 3.0m vertical  |
| Chain power           | 400 & 800kW  |
| Chain width           | 600mm  |
| Chain depth           | 2.0 & 3.0m   |
| Chain speed           | 0 to 4.0m/s  |
| Chain type            | heavy duty chain with point<br>attack picks                            |
| Forward dredge pump   | 75kW/hr 600m <sup>3</sup> solids                                       |
| Dredge spoil backfill | spoil fed to cover cable   |

### JETTING SYSTEM

|                 |  |
|-----------------|--|
| Configuration   | Independent twin-legged device<br>either side of cable/product |
| Jetting         | Water pumps with hydraulically<br>variable supply/             |
| Pressure 1      | 0-15bar  |
| Flow            | Up to 800m <sup>3</sup> /hr per sword<br>@10bar                |
| Sword isolation | Upper 1.0m for hard ground                                     |
| Power           | 2x300kW direct drive   |
| Jet leg         | depth 3.0m   |
| Depressor       | 3.0m   |

### CRANE MANIPULATOR & TOOLS

|                        |   |
|------------------------|---|
| Configuration          | Four function crane fitted with<br>three function grab, single water<br>jet and dredge system |
| Crane lift capacity    | 3Te/m   |
| Grab max lift capacity | 4.0Te   |
| Crane max reach        | 7.0m  |
| Crane jet power        | 1500lpm @ 4 bar   |

### HYDRAULIC SYSTEM

|                                |                                  |
|--------------------------------|----------------------------------|
| Cylinders                      | Smart heavy duty marine          |
| Valves                         | Directional & counterbalance     |
| Valve packs                    | Stainless steel, oil compensated |
| Manifolds, pipes<br>& fittings | stainless steel                  |
| Hoses                          | Mutli-spiral flexible hoses      |

### SUBSEA SURVEILLANCE

|                                    |  |
|------------------------------------|--|
| Cameras                            | Up to 8<br>(HDTV optional)   |
| Lamps                              | Up to 12 x 250V<br>Dimmable LED subsea lamps<br>(Dimmed in groups) |
| Pan and tilt                       | Up to 6 24V P&T units  |
| Sonar                              | Kongsberg/Tritech  |
| Gyro                               | Fibre optic  |
| Acoustic Positioning               | To suit vessel   |
| HID lamps<br>(optional)            | Up to 2 x 400W   |
| Profilers<br>(optional)            | Kongsberg/Tritech/Multibeam  |
| Echosounder<br>(optional)          | Kongsberg  |
| High definition<br>multibeam sonar | Blueview   |

### OTHER EQUIPMENT

|                           |   |
|---------------------------|---|
| Control &<br>power system | 2 x 20ft ISO container<br>SMD DVECS II or DVECS S system                    |
| LARS                      | 80Te SWL sea state 5 A frame<br>with shallow water rapid<br>recovery option |
| Umbilical system          | 1500m & 3.0Te winch   |
| Winch                     | HPU 22kW or 330kW<br>deck mounted   |
| A-frame                   | 80Te SS5 with rotator<br>docking frame                                      |
| Lift winch                | 1000m lift wire with bullet   |

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