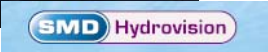


TYCO Arado Cable Burial System



SMD Plow ARADO

FLOW SYSTEM SPECIFICATION

- Manufacturer:** SMD (SOIL MACHINE DYNAMICS LTD) UK
- Type:** Telecommunication, submarine cable burial
Power & oilfield umbilical burial,
- Rated Water Depth** 1,500 meters
- Maximum Burial Depth with sinkage**..... 1.5m.
- Cable Diameter** 17 - 150mm
- Tow Tension at Plow** 40 Ton Bollard Pull

(NB: Host vessel's tow winch capacity, bollard pull and operational environment may dictate maximum pulling force)

The Cable Plow System ARADO is an SMD made burial system uniquely designed to require a 40 Ton bollard pull. It can trench and bury submarine cable to a depth of 1.5 meters, in up to 1,500 meters of water depth, and operate in a wide variety of seabed environments, ranging from sand to medium strength clays.

System Components Weights and Dimensions

Length	<i>maximum.....</i>	9.9 meters
Width	<i>maximum.....</i>	4.4 meters
Height	<i>maximum.....</i>	4.5 meters
Weight	<i>Dry</i>	14.5 tons

Operational Parameters

Minimum Soil Strength	5 kPa
Minimum Lay Cable Bend Radius	1.5 meters
Repeater maximum Diameter.....	380 mm
Maximum size of Splice Box in the share.....	150 mm
Cable Diameter	17 - 150 mm
Maximum side slope of the seabed.	20°
Maximum up / down slope of the seabed.	30°

Surveillance Equipment

Cameras	3
Lights.....	4
Sonar	Mesotech
Pan & Tilts.....	2

The Plow System, ARADO, is self-contained using 20-foot vans (modified ISO containers) for control cabin, maintenance and spares, as well as Hydraulic Power Unit for topside launch and recovery.

The plow has two hydraulically actuated and independently adjustable skids, one on either side of the plow body, to control plow stabilization and burial depth. It also has stabilizing wheels independently actuated with travel and distance encoders. The cable burial depth is controlled by a depressor actuating inside the plow share.

A full sensor instrumentation suite allows the operator to continuously monitor Tow Tension, Depth of Burial and plow system status. The sensor information and video is transmitted to the operator console in the control van via an electro-optical umbilical cable.