CAPJET A
TRENCHING SYSTEMS
The CAPJET systems was originally developed as a cable burial tool for shallow water jetting. The system was further developed for deeper water and the CAPJET performed the first remote controlled offshore operation in 1989. The requirement for burial in harder soil and trenching of flowlines has lead to an increase in power up to 1MW.

Today Nexans operate three complete 1MW trenching systems with handling systems and AHC electrical umbilical winches allowing operations in significant wave heights up to 3.5m. Optional equipment to enable deburial of products and backfill ploughs can be installed onboard to allow different operations without remobilizations. The Capjet systems are also able to perform as-trenched survey, further reducing the need for additional mobilization of equipment and personnel.

**Size & weight**
- Control container 1 x 20’, 7 t
- Workshop 1 x 20’, 4 t
- Transformer container 1 x 20’, 13 t
- Storage container 1 x 20’, 7 t
- Generators (optional) 2 x 20’, 15-18 t each
- Umbilical winch 4.4 x 3 x 2.8 m, 30 t (1000m typ)
- Capjet 8 x 4 x 2.5 m, max 18 t
- Handling system
  - Operation up to Hs 3.5 m vessel dependent
  - Constant tension winch
  - LARS 18 t SWL DAF 3.33. 3.5 x 5 x 11 m, 42 T

**Frame and lift structure**
- Titanium air filled structure
- Pressure rating 2000 m
- Buoyancy (for North Sea operation) 1000 m or 1550 m.

**Trenching module and water pumps**
- Adjustable front and aft swords
- Vertical lifting 600 mm
- Horizontal adjustment of sword opening 200 mm
- 2 x 420 KW water pumps
- Pressure from 10 to 16 bar
- *dependent of project requirement.*

**Hydraulic system**
- 2 x 150 HP HPU redundant systems
- 1 x 6 HP dirty hydraulic
- 10 x 17 thrusters (each 550 kg)
- Bollard pull
  - Forward approx 2000 kg
  - Lateral 1000 kg
  - Vertical 1000 kg
- all HPUs pressure software controlled

**Optional equipment**
- Backfill plough
- Ejector system
- Cable trenching to 3,2 m burial depth
- Tension system for all modules

**Control system**
- All data are collected on a serial to Ethernet drop down network which
- Gives local control of all sensors and valvepacks.
- The latest control system technology as OPC, distributed data collection, touchscreens and WEB based monitoring and support tools.
- The system can be fully supported through the internet and low speed connections.
- Realtime control system for transformer control, LARS and umbilical winch control and monitoring.
- Integration in vessel PMS when power from vessel available
- MRU monitoring

**Sensors (typical)**
- Six color video cameras
- Three off electrical P&T units
- Imaging sonar
- Digijuquarts pressure sensor
- Digital yoke sensor
- Mesotech digital altimeter
- Octans fiberoptical survey gyro
- Position sensors on all hydraulic movements
- Doppler

**Sensors (Optional)**
- Cable tracker
- Multibeam
- INS
- 3D Imaging sonar