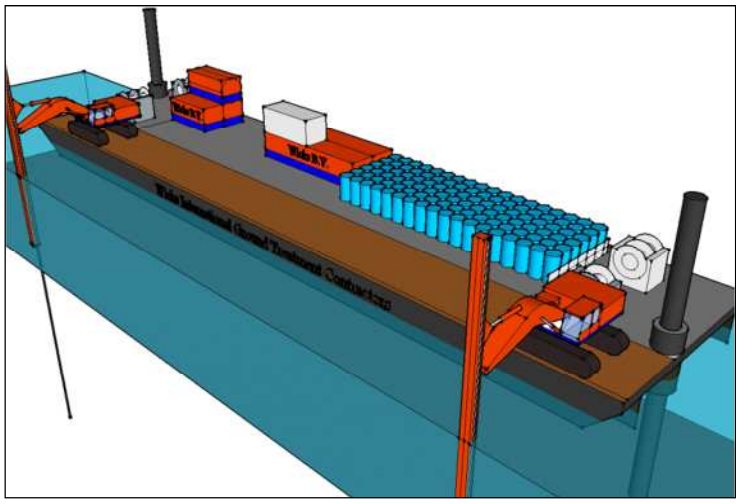
Vertical drain marine installation

Vertical drain marine installation is a possibility when drains need to be installed under water. A flat top barge is the base unit, together with 2x spud pools including hoisting winches at forward and aft on the barge to keep the barge in position during the PVD installation. The anchors and winches are used to shift the barge in line.

For positioning purposes we use an operational survey system (RTK). We also use a PC/PLC operation system at the barge and PVD units to log:

- all movements
- drain positions
- drain depths
- drain penetration forces
- drain cut off forces
- drain points
- drain timing (point duration)
- total installed m1



Typical lay-out installation barge

The benefits of vertical drain marine installation are:

- accurate positioning of each drain point/location
- less waste material and environmental friendly
- anchor plates are not required because of Wicks innovations
- save of labour and time
- no additional riggers and cutters are required
- less joint, less waste, higher productions due to use of 3.000 m1 PVD roll
- an electronic sensor, which monitors the 'vertical' position, is installed on the PVD mast unit to guarantee the precision of installation
- 2x PVD units are working at one side of the barge: safe and clear operation, safe and easy access to the barge for material supply and labour transfer and the operation will not be affected

Track record

2005 Amsterdam reclamation “IJ”, the Netherlands
2005 Reclamation Shell Amsterdam, the Netherlands
2007 Reclamation Waalhaven Rotterdam, the Netherlands
2008 Sassenplaat silt depot, the Netherlands
2012 Quay wall Danzigerkade Amsterdam, the Netherlands
2013 MOS Bremerhaven, Germany
2014 Kopblok Houthaven, Amsterdam, the Netherlands