

Case Study

HOPPER DREDGER

KB1649

Beens Dredging B.V. (the Netherlands)



MEASURING TASK

Determination of sludge density behind the suction pump.

Hopper capacity:	950 m ³
Pipe diameter:	508 mm (20 inch)
Pipe material:	Steel
Solids:	10 - 35 wt%
Density:	1 – 1.4 ton/m ³
Temperature:	5°C – 25°C (41°F – 77°F)

INSTRUMENT USED

The SDM Slurry Density Meter. The SDM is installed in a 20 inch pipe by means of a metal weld-on piece (weldolet).

CHALLENGE

Beens Dredging got the assignment to remove a certain amount of sludge from the port in Amsterdam to ensure a safe passage for ships. The operator of the ship wants to fill the hopper with sand as quickly as possible to reduce the total time spent on this project. A density meter was needed to monitor the real-time density of the sludge.

SOLUTION

The SDM is a good solution for this measuring task, because of its reliable, stable and real-time measurement results. The instrument uses non-nuclear technology, so there are no additional safety costs or governmental restrictions.

The density meter is used in combination with a flow meter to determine the optimal dredging condition. The density and flow rate are both shown at a (digital) cross meter in the wheelhouse. This cross meter helps the operator to execute a dredging session more efficiently, resulting in a reduction of the total project time and accordingly also the costs.

RESULTS

The SDM contributes to:

- Real-time density monitoring
- Determination of the optimal dredging condition
- Efficient completion of the dredging session
- Reduction of time and money spent on a project
- Quicker response to changing process conditions
- Avoiding pump obstructions



FOR FURTHER INFORMATION

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