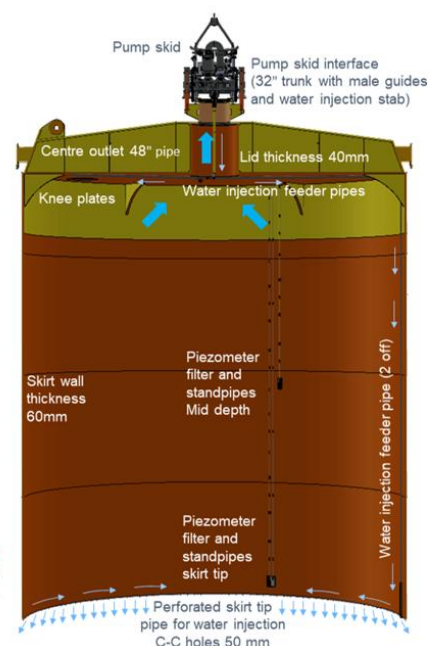
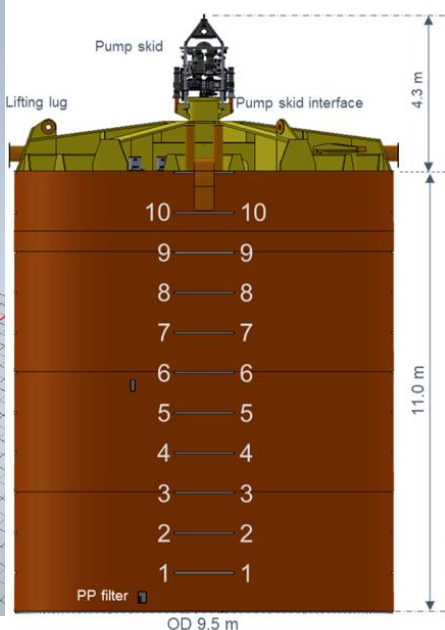
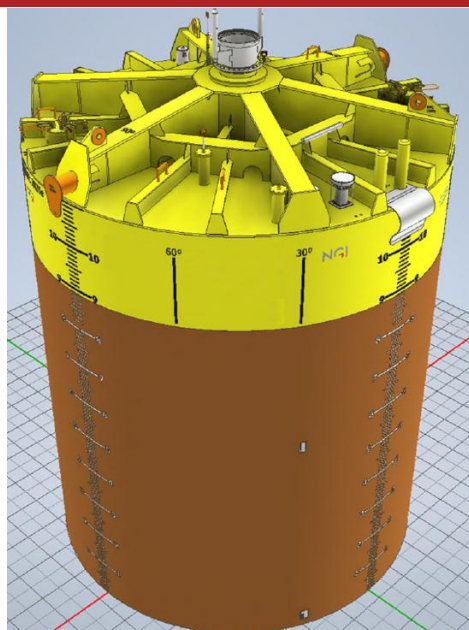


NGI Instrumented Suction Bucket



The instrumentation system is designed to support installation assessment and to advance geotechnical knowledge by improving the understanding of the processes involved during suction installation of a bucket.

In addition to the integrated pump skid system for pore-pressure measurements along the skirt walls, the bucket is fitted with sensors for monitoring buckling strains. The main instrumentation includes:

Pump skid instrumentation

- **Reference frame** for external penetration measurements
- **Echo sounder** for point measurements of seabed clearance and soil plug level
- **Scanning sonar system** for profiling the soil plug
- **Total pressure sensors** (inside and outside) for differential pressure, water injection pressure, and outside penetration
- **Electromagnetic pump flow instruments**
- **Multiple cameras** to monitor pump skid functions, water discharge, and sling operations

Auxiliary instrumentation on the test bucket

- **Pore pressure sensors** along the skirt wall (two sections, each with three levels)
- **Fibre-optic strings** along the skirt wall for buckling strain measurement
- **Ventilation hatches** to increase the operational weather window

SUCTION BUCKET - KEY DIMENSIONS

Skirt length:	11.0 metres
Overall height:	15.3 m
Outer diameter:	9.5 m
Wall thickness:	60 millimetres
Lid thickness:	40 millimetres
Inside lid area:	69 m²
Dry weight:	205 Te



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