SMS Ltd provides sand monitoring using best in class, field proven technology. After extensive testing of various monitoring systems, we identified the instrumentation to give our clients the edge they require.

System Overview
The scanner continuously records UT wall thickness measurements as the scanning head is moved over the inspection surface. Using these readings, we can then produce the 3D profile showing the complete wall loss of the inspected area of pipe.

Features
3D image profiling
- Profile of erosion and corrosion high-risk areas

100% coverage of pipe
- Complete 360-degree coverage – no areas missed

Maintenance optimisation
- Optimisation of maintenance to model component lift expectancy

Non-intrusive
- External scans can cover all pipework and vessels

Compact & handheld unit
- Lightweight and mobile unit to aid application

Benefits
Increased Safety
- Higher probability of detection that conventional single point UT thickness gauging

Reduced Costs
- Provides early identification of areas of concern

Repeatable and Reliable
- Repeatable method of tracking wall loss

Comparative results
- 3D mapping allows detailed comparative analysis over time
**Scanner Unit**

**For elbows and bends**
Dimensions ......................... Length 122mm (4.8") Width 65mm (2.5") Height 54mm (2.1")
Transducer ......................... TWP25 5 MHz dry coupled wheel probe
Umbilical Cable .................... 2 meter (6.5 feed)

**For vessels**
Dimensions ......................... Length 110 mm (4.3") Width 87mm (3.4") Height 50mm (2")
Transducer ......................... TWP25 5MHz dry coupled wheel probe
Max Scan Area ..................... 550mm (21.74") radius 1800 swing

**Ultrasonic Module**

Pulse Voltage ....................... -400V
Pulse Shape ......................... Spike
Receiver Gain ....................... 0-80 dB in 1 dB steps
Filter ................................. Wideband (0.5-2MHz)
........................................ 1.5 – 3.35 MHz
........................................ 3.5 – 7.00 MHz
........................................ 6.5 – 12 MHz
Sample Rates ....................... 50 MHz
Waveform Length ................... 32768 samples (excl delay)
Transducer Range .................. 1.0 MHz – 15MHz
Transducer Mode .................... Single or dual via software
Computer Interface ............... USB 2.0
Connectors ........................... Encoder – 25 way D type socket
........................................ UT 2 x BNC (Tx & Rx)
........................................ Data – IP68 USB “B”
Charger ............................... 1.5 Amp / Tamiya Connector
Battery ............................... 11 hours operation from fully charged
........................................ 1.5 hours from flat