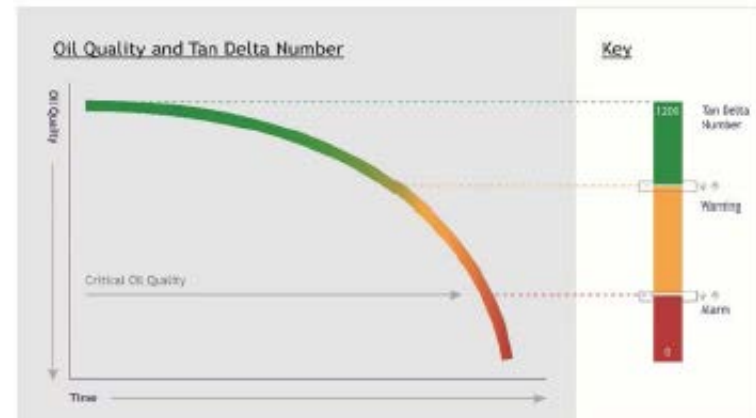


# Our Technology & How it Works

The sensor works by continually monitoring the ratio between two key measurements, capacitance and conductance, producing in real time a measurement called permittivity. The sensor then compares this reading to the expected permittivity reading for the oil at the given temperature, with the difference between the two providing a highly accurate and reliable statement of oil quality. This happens hundreds of times a second. Tan Delta owns the patent for this process.

The sensor data is transmitted to Tan Delta display products where the permittivity reading is converted to a Tan Delta Number 'TDN' which scales oil condition on a scale of 1200 to 0 for easy reference and understanding.



# Our Technology Continued

The TDN is the operators' indicator of oil condition. They can use this data to develop TDN thresholds and rates of change to determine when maintenance and other action points.

- The OQSx sensor should be configured with the correct Tan Delta Oil Profile for the specific oil type to be monitored. Profiles are created by Tan Delta for a small fee and added to the growing Tan Delta Oil Database.
- The sensor is installed on the equipment where the sensor head will be continuously immersed in the oil. This is easily achieved using an existing inspection port, or through the supply of a simple manifold.
- The sensor continuously sends data of oil condition and temperature to the local display or into the existing telematics system. The operator now always knows the exact condition of the oil at any given time.
- Our core technology delivers the exceptional performance and functionality of our products.
- Patent protected Tan Delta sensor technologies safely and continuously detect and quantify any change in oil quality.
- Our technology will detect any change no matter the cause of the change related to; general wear, water ingress, acid, gas, soot, viscosity.
- Tan Delta technology delivers unique holistic oil condition monitoring.
- Tan Delta core data processing extracts the exact condition of the oil from the raw sensor data and converts into an easy to understand Tan Delta Number (TDN) on a scale of 0 to 1200.