



"Tomorrow's Instruments... Today"™

TANNAS *QUANTUM*TM OXIDATION TESTER

Oxidation Stability – RPVOT & TFOUT

- ASTM D 2272, IP 229, D 4742,
– used with new & in-service
oils, steam turbine oils,
insulating oils and gasoline
engine oils.
- Only non-Liquid RPVOT &
TFOUT oxidation bath available
- New direct 'Dry-Cylinder'
sample heating -- eliminates hot,
hazardous, liquid bath mess and
odor
- Rapid turn-around in test
capabilities due to independent
sample testing -- estimated to
double productivity with multi-
unit setup
- Very small, bench-top footprint
- Auto-Shutoff at end of test.
- Does not require placement in
hood -- simple venting of odors
through plastic tubing to
scrubber or vent
- Automation Package (w/laptop),
monitors & records up to four
Quantum units at the same time
or separately



Hot oil baths of varying sizes have long been used in the industry for running the Rotating Pressure Vessel Oxidation Test or RPVOT (formerly known as RBOT) and the Thin-Film Oxygen Uptake test (TFOUT). These bath types expose the operator to hot oil fumes, are prone to leak, need regular maintenance and are generally messy and potentially hazardous to operate.

As laboratory facilities are under increasing scrutiny to improve working conditions and encourage healthy work environments, alternative approaches to running these tests are desirable.

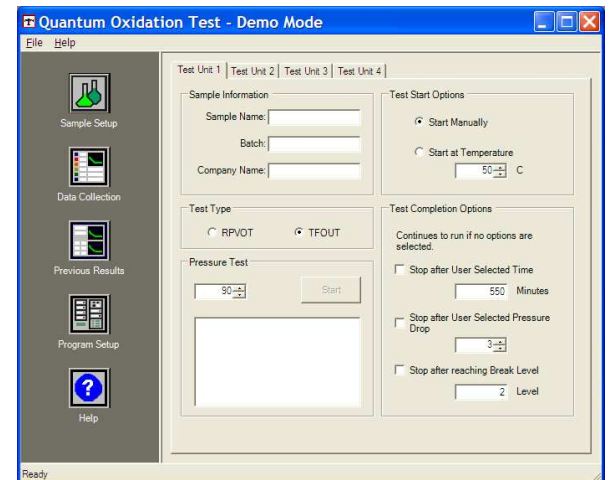
In 2003, Tannas Co. set out to effectively eliminate the hazards and mess of hot oil baths and has recently completed the development of the Tannas *Quantum* Oxidation Tester, **the only non-liquid 'dry-cylinder' heating system available** for running these critical tests.

TANNAS CO.

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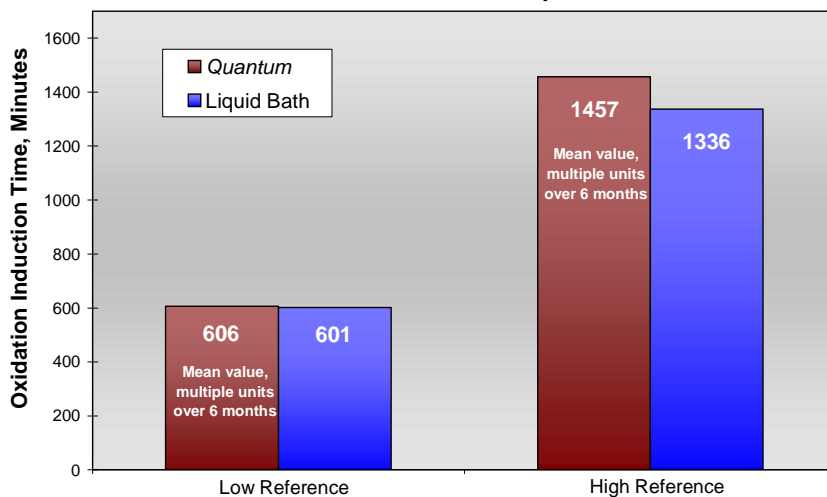
Tannas *Quantum*TM Oxidation Tester

Dimensions	Bench-top 8"(w) x 15"(d) x 13" (20 x 38 x 33 cm)
Weight	~20 lbs. (9 kg)
Voltage	120/220 VAC, Single Phase, 15 amp. 50/60 Hz
Heating Medium	'Dry-Cylinder' heating system – no hot oil bath
Testing Capacity	Single position stainless steel pressure vessel w/pressure transducer Designed for multi-unit alignment, each independent
Test Parameter Capabilities	Temperature: 200°C ±0.1°C recommended max. Oxygen Charge: 100 ±0.1 psi recommended max. Vessel Rotation: Variable speed control
Output	Continuous temperature & oxygen pressure readout -Digital USB to Laptop -Dsub9 to Analog strip-chart recording
Safety	Auto-Shutoff at end of test Current limiting fuses Over-pressure sensor & relief Over-temperature Cut-off Fuse



Data taken from numerous *Quantum* instrument qualification runs show close comparison to that of the traditional liquid bath on a low and relatively high reference oil. *Quantum* results also show precision well within standard limits.

RPVOT Comparison
Quantum vs. Liquid



The software package provides automated pressure and temperature monitoring and end point detection for up to four independent *Quantum* units. End of test criteria can be selected by Time Duration, Pressure Drop or Break level. DAQ acquisition with USB interface to included laptop...
Many more features, call for details.



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