

Precision Laboratory Instruments

for testing Lubricants & Fluids



TBS Viscometer

High-Temperature High-Shear Viscosity

ASTM D4683, D6616 | CEC L-36 | IP370

Tapered Bearing Simulator:

Rotational viscometer that measures the high-temperature, high-shear rate viscosity of oils from 40°C to 150°C. Both models available with 40+ position AutoSampler capability.

Required test for SAE J300; ILSAC GF Specifications; API SM, SN, SP; ASTM D4485; Chinese GB-11121 & GB-11122.



Quantum®

Non-liquid RPVOT Oxidation Test

ASTM D2272, D2112, D4742, D7098 | IP229

Oxidation Stability:

Dry cylinder, RPVOT (RBOT). Evaluates oxidation resistance over a broad range of oils and lubricants. Widely used for base oil comparisons and condition monitoring for turbine oils. Compact, single-test design without dangerous hot bath oil.

Research Accessories:

Sample Extraction Device and Sample Temperature Probe



TanEV CDT™

Electric Vehicle (EV) Conductive Deposits

ASTM D8544 | SAE J3200

Conductive Deposit Test:

Designed to determine the tendency of lubricating fluids to form conductive layer deposits on exposed copper motor windings, connectors, and electrical components at elevated temperatures in an Electrified Vehicle (EV) Drivetrain. A specially modified circuit board (PCB) is lowered into 20 ml of test fluid at 150°C for ~500, hours while supplied with a 5V DC signal.



TFAB

Foam Tendency & Stability

ASTM D892, D6082, D1881, D7840 | IP146

Tannas Foam Air Bath:

A non-liquid bath, the TFAB, tests foam additive effectiveness from 24°C to 150°C. Features a quiet, maintenance-free Direct Drive motor, touchscreen, and a six-position carousel for 1000-mL cylinders.

Required test for ILSAC GF Specifications; API SM, SN, SP; ASTM D4485; Chinese GB-11121 & GB-11122.



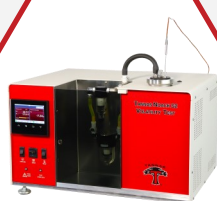
Direct Cool® II

Low-Temperature Pumpability & Gelation Index

ASTM D2983 - Proc. D, D5133, D7110, D8210

The non-liquid, thermoelectric cooling Direct Cool II performs ASTM D2983 and the two SBT® tests, measuring low-temperature pumpability and Gelation Index of fresh, sooted, & highly oxidized oils. Provides continuous rheological data over a broad temperature range (+90°C to -40°C).

Required test for ILSAC GF Specifications; API SM, SN, SP; JPI-55-56-99; ASTM D4485; Chinese GB-11121; OEM Specs.



Noack S2®

Evaporation Loss Phosphorus Volatility

ASTM D5800 | SH/T0059 | CEC L-40

Noack S2® Volatility Test:

Measures the tendency of base & formulated oils to volatilize in service. Eliminates hazardous Wood's Metal and is tunable to lab environment. Collects volatiles to determine Phosphorus Emission Index (PEI).

Required test for ILSAC GF Specifications; API SM, SN, SP; ASTM D4485; Chinese GB-11121 & GB-11122.



TEOST®

High-Temperature Deposit Control

ASTM D7097, D6335, D8447

Thermo-oxidation Engine Oil Simulation Test:

Measures the high-temperature deposit tendencies of engine oils that form under varying high-temperature conditions (turbo-charger and piston ring areas). For TEOST® 33C, MHT® & TEOST Turbo® tests.

Required tests for ILSAC GF Specifications; API SM, SN, SP; ASTM D4485; Chinese GB-11121; OEM factory fill.



SBT®+2

Multi-Purpose Low-Temperature Liquid Bath

ASTM D5133, D7110, D2983, D4684, D445, D97, D2500, D2386

Meets numerous low-temperature test methods with easily replaceable Insert Modules for each test method. Designed for use with patented SimAir® Test Cells for low-temperature viscosity of lubricants (ASTM D2983).

Ideal for low-temperature work with fresh, sooted, or highly oxidized oils, ATFs, hydraulic fluids and fuels.



TANNAS CO.

4800 James Savage Rd.
Midland, MI 48642 USA



TannasKing.com



tannas@savantgroup.com



+1 989 496 2309



+1 989 496 3438



ISO 9001

© 2024 Tannas Co. | 03/2024 | Printed in USA

Precision Laboratory Instruments

for testing Lubricants & Fluids



King MRV TP-1

Low-Temperature Pumpability & Yield Stress

ASTM D3829, D4684, D6821, D6896

Mini-Rotary Viscometer: Determines borderline pumping temperatures of oils and lubricants with patented *direct refrigeration* technology. Features a small bench-top footprint, 10 sample capacity, and removable test cells for ease-of-use. Required test for SAE J300; ILSAC GF Specifications; API SM, SN, SP; ASTM D4485; JPI 5S-42-04; Chinese GB-11121; OEM factory fill.



King BLB

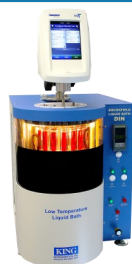
Low-Temperature Viscosity

ASTM D2983, D97, D2500, D5853 | IP267

Liquid Bath: Measures low-temperature viscosity of lubricants using the patented SimAir® technique with a small, less costly, *constant* temperature liquid bath. Only technique for independent sample analyses to eliminate batch sample testing. Features a 12-position carousel.

BLB 701 Model: +30°C to -40°C

BLB 702 Model: +30°C to -70°C



King BLB-DIN

Low-Temperature Viscosity

DIN 51398 | ASTM D2983 | IP267

BLB-DIN Liquid Bath: Similar to D2983, the German Standard DIN 51398 determines the apparent viscosity of gear oils and related fluids at low-temperature. Features programmable control, digital display to 0.01°C, and cooling at 1°C/min to -55°C.

The BLB-DIN can be adjusted to run either the D2983 test (using SimAir® Cells) or the DIN standard.



SimAir® Test Cells

Patented Test Cell Innovation for ASTM D2983

ASTM D2983 | IP267

SimAir® Test Cells offer simple, precise, and more efficient data acquisition than Air Baths. Used exclusively in the King BLB and Tannas SBT® +2 liquid baths, the SimAir® Glass Stator design incorporates an insulating chamber between two glass walls to simulate the cooling profile of the original cold air cabinet. Each Test Cell functions with its own independent cooling profile, and can be added or removed from the bath at any time.



KING REFRIGERATION, INC.
4800 James Savage Rd.
Midland, MI 48642 USA



TannasKing.com
tannas@savantgroup.com



+1 989 698 5500
+1 989 496 3438



ISO 9001

© 2024 King Refrigeration | 03/2024 | Printed in USA