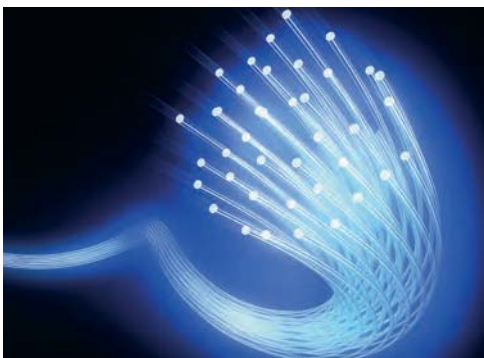
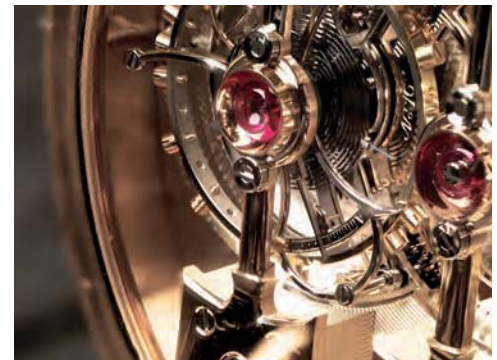


Grease Testing

Laboratory Instruments for quality control,
analysis and calibration



Seta-Shell 4-Ball Lubricant Tester with Autoload System (19900-2)

ASTM D2596, ASTM D2783, ASTM D2266, D4172, CEC L-45-T-93, EN ISO 20623, IP 239, ISO CD 11008, ISO 26422, DIN 51350-6

- Applied loads range up to 800kgF
- Drive speed from 1200 to 1760rpm
- Timer range 0.1s to 9999hr
- Torque measurement and limiting
- Digital displays of Applied Load, Torque, Time
- Safety/splash guard

The Seta-Shell 4-Ball Lubricant Tester determines the friction properties of extreme pressure oils and greases. Used in tribology research laboratories and in the routine quality control of finished lubrication products.

| | 19900-2 | 19800-6 |
|----------------------|-----------------------|-----------------------|
| Speed Range | 1200 to 1760rpm | 1200 to 1760rpm |
| Load Range | 40 to 800kgF | 0 to 800kgF |
| Timing | 0.1s to 9999hr | 0.1s to 9999hr |
| Voltage | 220/240V 50/60Hz | 220/240V 50/60Hz |
| Power | 1.5kW | 1.5kW |
| Size (HxWxD)/ Weight | 169 x 63 x 62cm/150kg | 169 x 82 x 62cm/161kg |



Seta Water Washout Tester (19610-4)

ASTM D1264, IP 215, ISO 11009

- Designed with large access panels for test hub and pump
- Recirculating bypass valve for pre-heating.
- Rapid warm up time
- Fully removable pump for servicing
- Integral bath drain
- Separate electronics compartment
- Easy to calibrate

The Seta Water Washout Tester is used to evaluate the resistance of a lubricating grease from a bearing to washout by water.

The test bearing is mounted on a hub, and rotated by an electric motor and toothed belt at 600 rev/min. A peristaltic pump draws heated water from the tank, through a filter, and sprays it, via a 1mm capillary, onto the face of the bearing at a flow rate of 300ml/min. The temperature of the water is digitally controlled in the range of ambient to 80°C. The water containing washed out grease is collected in the tank, filtered and recycled. A drain tap allows the tank to be emptied at the end of a test.

The front panel has controls for water temperature, fine adjustment of water flow rate and bearing rotational speed, and a jet bypass switch to allow pre-heated water to circulate without passing through the jet.

| | |
|--------------------------|--|
| Bearing rotational speed | 600 ±30 rev/min |
| Tank capacity | 750ml |
| Temperature range | Ambient to 80°C |
| Water flowrate | 5ml/sec |
| Voltage | 110/120V, 50/60Hz 220/240V, 50/60Hz (switchable) |
| Power | 600W |
| Size (HxWxD)/ Weight | 30 x 40 x 40cm/24kg |



Stanomatic Dual Grease Worker (17790-2 & 17792-2)

ASTM D217, ASTM D7342, IP 50, ISO 2137

- Quick release heavy duty brass or stainless steel worker cups
- Works two grease cups simultaneously
- Auto-stop at up to 99,999 strokes
- 60 ±10 strokes per minute
- Cover and plunger assemblies with 51 x ¼ inch hole perforated plates
- Safety screen with auto shut off
- Large bore cock for thermometer insertion

Two grease working assemblies comprising a heavy duty grease pot with screw lid are mounted on a cast aluminium base by dowel pins and quick release cams. A plunger passes through the lid and is attached to a perforated metal Worker Plate. A large bore grease-cock allows excess air/grease to escape during assembly and insertion of a thermometer.

| | |
|----------------------|--|
| Speed | 60 strokes per minute ±10 |
| Worker Plate | 51 x 1/4 " holes (Optional Churn Plate 270 x 1/16"holes) |
| Grease Pot | 2 x Brass (17790-2) or Stainless Steel (17792-2) |
| Voltage / Power | 110/120V, 60Hz 220/240V, 50/60Hz / 450W |
| Size (HxWxD)/ Weight | 46 x 37 x 50cm/38kg |



Seta Roll Stability Tester (19400-3)

ASTM D1831, MIL-G-10924

- 10 rev/min and 165 rev/min
- Air bath temperature range ambient to 150°C
- Integral timer
- Four test cylinder capacity

Up to four test cylinders can be used simultaneously, each test cylinder contains a heavy roller and is loaded with a quantity of the sample grease. The test cylinder rests horizontally upon a set of driving and guide wheels which rotate the cylinder at either 10 or 165 rev/min.

A digitally controlled fan assisted air bath is closed over the cylinders to provide evenly distributed heating up to 150°C, and an integral timer is used to set the test duration.



| | |
|----------------------|--|
| Rotation Speed | 10 or 165 rev/min |
| Temperature Range | Ambient to 150°C |
| Voltage / Power | 110/120V 60Hz or 220/240V 50Hz / 1.4kW |
| Size (HxWxD)/ Weight | 64 x 64 x 41cm/45kg |

KV-6 Viscometer Bath (84200-2)

ASTM D445-IP 71, ASTM D446, EN ISO 3104

- Up to 6 viscometer tubes
- 50 litre oil/water bath
- Temperature stability ±0.002 at 40°C, ±0.005 at 100°C and ±0.01 at 150°C
- Temperature range ambient to 150°C
- Digital display with 0.01°C resolution
- Toughened glass front panel
- Integral back lighting

| | |
|-----------------------|--|
| Temperature Range | Ambient to 150°C (Ambient to 302°F) |
| Temperature Stability | ±0.002° at 40°C, ±0.005° at 100°C, ±0.01° at 150°C |
| Tube Capacity | up to 6 |
| Bath Fluid | Oil or Water (50 Litre Capacity) |
| Size (HxWxD)/ Weight | 68 x 56 x 33cm / 33kg |



DROP POINT

ASTM D2265, ISO 6299

Seta Grease Drop Point Oven (11730-3)

- Aluminium solid block oven
- Six test apertures
- Temperature range 120 to 345°C
- Illuminated chambers

OXIDATION VESSEL

ASTM D942, BS 2000 Part 142, IP 142, DIN 51 808

Norma Hoffman Oxidation Pressure Vessel (16400-4)

- Used to determine the resistance to oxidation of lubricating grease when stored statically in a sealed system with an oxygen atmosphere
- Comprises polished stainless steel cylinder with top closure and lead seal, stem, needle valve and quick connection coupling
- Tested to safe working pressure of 1860kPa (270psi)

PENETRATION

ASTM D1403, ASTM D1831, ASTM D217, ASTM D7342, ASTM D937, IP 179, IP 310, IP 50, ISO 2137

Setamatic Penetrometer (17500-0)

- Microprocessor controlled automatic penetrometer
- Penetration range 0 to 630 Pen (63mm)
- Timer range 1 to 9999 seconds
- Automatic plunger release and retention
- Flexi light & inbuilt spirit level
- RS232C interface

Semi-Automatic Universal Penetrometer (17190-3)

- Penetration range 0 to 640 Pen (64mm)
- 5, 8, 10, 12, 30 and 60 second timer settings
- Solid state timer
- Automatic plunger release and retention
- Flexi light & inbuilt spirit level

Seta ASTM-IP Cone (18000-0)

ASTM D1403-IP 310, ASTM D217-IP 50, ASTM D937-IP 179

- Brass (hollow) conical body
- 3.17mm (1/8 inch) stem diameter
- 102.5g ±0.05g mass

SEPARATION

Seta Pressure Bleeding Test Cell Type B (20990-0)

ASTM D1742, FTM 791 322

Comprises a tightly fitting cap and cover which contains a 75µm (No. 200) sieve strainer, a funnel for collecting separated oil and a 25ml beaker for retaining the oil.

Seta Grease Separation Apparatus (20900-0)

BS 2000 Part 121, DEF 222A CS 3107, DIN 51 817, IP 121

Comprises a stainless steel separation cup with metal gauze cone, 100g stainless steel weight and an oil cup.



11730-3



16400-4



17500-0



17190-3



18000-0



20990-0



20900-0