**APPLICATIONS AND STANDARD TEST METHODS**

<table>
<thead>
<tr>
<th>Suitable for testing:</th>
<th>Applications include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Metals</td>
<td>- Industrial Equipment</td>
</tr>
<tr>
<td>- Glass</td>
<td>- Paints</td>
</tr>
<tr>
<td>- Plastics</td>
<td>- Plastics</td>
</tr>
<tr>
<td>- Composite materials</td>
<td>- Coatings</td>
</tr>
<tr>
<td>- Ceramics</td>
<td>- Slurry Abrasion</td>
</tr>
<tr>
<td>- Coatings</td>
<td>- Construction/Farm Equipment</td>
</tr>
</tbody>
</table>

**Standards and Practices:**

- **ASTM G65** Standard Test Method for Measuring Abrasion Using the Dry Sand/Rubber Wheel Apparatus
- **ASTM B611** Standard Test Method for Abrasive Wear Resistance of Cemented Carbide
- **ASTM G105** Standard Test for Conducting Wet Sand/Rubber Wheel Abrasion Tests
- **SAE Recommended Practice** Resistance to Abrasive Wear Using Rubber Wheel Abrasion Machine
**SYSTEM DESCRIPTION**

**SPEED AND VELOCITY:**
Variable speed control, 350 rpm max.
6.65" steel wheel (ASTM B611): 609.3 fpm max.
7" rubber wheel (SAE or ASTM G105): 641.4 fpm max.
9" rubber wheel (ASTM G65): 824.7 fpm max.

**LOAD:**
2.5 to 1 lever system with dead weights. Bale rod weights supplied.
Test loads to 75 lbs max.

**TEST CONDITIONS:**

**TEST DURATION AND REVOLUTION COUNTER:**
Timer Control System for automatic test shutoff and Cycle counter with built-in automatic cutoff (standard).

**SPACE REQUIREMENTS:**
Bench Top: 60 in. (L) x 24 in. (D) x 40 in. (H)

**SHIPPING INFORMATION:**
615 lb., 42 in. (L) x 36 in. (W) x 42 in. (H)
150 lb., 31 in. (L) x 31 in. (W) x 36 in. (H)
Shipping dimensions and weights are typical and subject to change.
FALEX DRY SAND/RUBBER WHEEL APPARATUS

Standard items included with Test Machine:
9 inch Rubber Wheel (2)
2.5 to 1 Load Lever System (30 lbs. Bale Weights)
Specimen Holder
Variable Speed Motor 350 RPM max
Test Cycle Counter & Cutoff
Exhaust Outlet
Wheel Dresser Assembly

WET SAND OPTION (SAE Method, ASTM B611 and G105)

Slurry Chamber
Specimen Holders
Stirring Paddles
### ASTM G65 TEST WHEELS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Shore A</th>
</tr>
</thead>
<tbody>
<tr>
<td>010-501-001</td>
<td>9 INCH RUBBER WHEEL</td>
<td>58 to 62</td>
</tr>
<tr>
<td>010-501-013</td>
<td>7 INCH RUBBER WHEEL</td>
<td>68 to 72</td>
</tr>
<tr>
<td>010-501-012</td>
<td>7 INCH RUBBER WHEEL</td>
<td>58 to 62</td>
</tr>
<tr>
<td>010-501-011</td>
<td>7 INCH RUBBER WHEEL</td>
<td>48 to 52</td>
</tr>
</tbody>
</table>

### ASTM G105 TEST WHEELS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Shore A</th>
</tr>
</thead>
<tbody>
<tr>
<td>010-501-013</td>
<td>7 INCH RUBBER WHEEL</td>
<td>68 to 72</td>
</tr>
<tr>
<td>010-501-012</td>
<td>7 INCH RUBBER WHEEL</td>
<td>58 to 62</td>
</tr>
<tr>
<td>010-501-011</td>
<td>7 INCH RUBBER WHEEL</td>
<td>48 to 52</td>
</tr>
</tbody>
</table>

### ASTM B611 TEST WHEELS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>010-501-005</td>
<td>6.65 INCH STEEL WHEEL</td>
</tr>
</tbody>
</table>

### TEST MATERIALS AND SUPPLIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>010-500-001</td>
<td>ASTM G65 REFERENCE TEST SPECIMEN</td>
<td>AISI D-2 Tool Steel, 59 to 60 HRC</td>
</tr>
<tr>
<td>010-500-003</td>
<td>ASTM G65 REFERENCE TEST SPECIMEN</td>
<td>AISI H-13 Tool Steel, 47 to 48 HRC</td>
</tr>
<tr>
<td>010-500-070</td>
<td>TEST SAND, AFS 50/70 (as per ASTM G65)</td>
<td>50 lb/bag</td>
</tr>
<tr>
<td>100-599-001</td>
<td>ALUMINA OXIDE, 30 grit (as per ASTM B611)</td>
<td>50 lb/bag</td>
</tr>
<tr>
<td>010-105-031</td>
<td>REPLACEMENT SAND NOZZLE, CALIBRATED</td>
<td>300 to 400 g/min sand flow</td>
</tr>
<tr>
<td>010-041-002</td>
<td>WHEEL DRESSING TOOL</td>
<td></td>
</tr>
</tbody>
</table>

**NEW AND USED TEST SAMPLES**

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For All of Your Lubricant and Materials Testing

Lubricants
- Pin and Vee Block
- Block-on-Ring
- Timken EP
- Tapping Torque
- Panel Coker
- High Temperature/High Speed Bearing
- Four Ball Wear
- Four Ball EP
- High Temperature Wheel Bearing
- Thermal Oxidation Stability (L60-1)
- Fretting Wear
- Hydrolytic Stability
- Grease Corrosion Test
- Isothermal Oxidation
- Hydraulic Fluid Pump Stand (Vickers and Conestoga)
- Thermal Fouling Tendencies (FT)^2

Fuels and Solvents
- Ball on Three Disk Fuel Lubricity
- Thin Film Evaporator
- Fuel Deposit Simulator
- Falex 400 Thermal Oxidation Tester for ASTM D3241 (JFTOT Procedure)

Materials
- Journal Bearing
- Multi-Specimen
- Crossed Cylinders
- Low Velocity Friction Apparatus
- Pin on Disk
- Coefficient of Stoption
- Life Performance Face Clutch System
- Thin Coating Wear (Electrical Contacts)
- Dual Drive Rolling Contact Fatigue
- High Speed Bearing/Mechanical Clutch

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