Air Capacitors are designed specifically for RF applications, VHF through microwave, and have become the industry standard of reference. High Q and temperature stability are a result of proper attention to geometry and choice of optimum materials. The heart of this trimmer is the one piece self-locking constant drive mechanism (illustrated to the right). This mechanism utilizes torsion slots to create a spring effect between two threaded sections, resulting in substantial contact which will ensure uniform torque at high Q and low dynamic tuning ratios.

**Applications**
- RF amplifiers and oscillators
- Impedance matching
- Interstage coupling
- Filter tuning
- Crystal trimming

**Characteristics**
- Marking Voltage: 250 VDC (500 VDC Test)
- Long Retention Life
- Insulation resistance: >10 MΩ
- Temperature range: -45°C to +125°C
- RoHS Compliant

### Capacitance Options

#### 1 to 10 pF (500 VDC)

- **5402**
  - Q @ 100 MHz: 3000
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

- **5502**
  - Q @ 100 MHz: 1500
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

#### 1 to 20 pF

- **5451**
  - Q @ 100 MHz: 1500
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

- **5453**
  - Q @ 100 MHz: 1500
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

#### 1 to 30 pF

- **5600**
  - Q @ 100 MHz: 800
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

- **5601**
  - Q @ 100 MHz: 800
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

- **5602**
  - Q @ 100 MHz: 800
  - Marking Voltage: 250 VDC (500 VDC Test)
  - Torque: 1 to 5 in oz.
  - Tuning Tool: 0714
  - RoHS Compliant

### Specifications

- **Model**: 5402, 5502, 5451, 5453, 5600, 5601, 5602
- **Q @ 250 MHz**:
  - 5402: >3000
  - 5502: >1500
  - 5451: >1500
  - 5453: >1500
  - 5600: >800
  - 5601: >800
  - 5602: >800

- **Temperature Range**: -45°C to +125°C
- **Torque**: 1 to 5 in oz.
- **Marking Voltage**: 250 VDC (500 VDC Test)
- **RoHS Compliant**: Yes

**Applications**
- RF amplifiers and oscillators
- Impedance matching
- Interstage coupling
- Filter tuning
- Crystal trimming

**Characteristics**
- Marking Voltage: 250 VDC (500 VDC Test)
- Long Retention Life
- Insulation resistance: >10 MΩ
- Temperature range: -45°C to +125°C
- RoHS Compliant
Air Capacitors are designed specifically for RF applications, VHF through microwaves, and have become the industry standard of excellence. High Q and temperature stability are a result of proper attention to geometry and choice of optimum materials. The heart of this trimmer is the one piece self-locking constant drive mechanism (illustrated at the right). This mechanism utilizes torsion slots to create a spring effect between two threaded sections, resulting in substantial contact areas which ensure uniform torque, high Q and low dynamic tuning ratio.

### Applications
- RF amplifiers and oscillators
- Impedance matching
- Interstage coupling
- Filter tuning
- Crystal trimming

### Characteristics
- Marking Voltage: 250 VDC [500 VDC Test]
- Impedance range: 1.0 to 10.0 pf (10 turns)
- Tuning Tool: 0714
- RoHS Compliant

### Capacitance Range

<table>
<thead>
<tr>
<th>Series</th>
<th>Series Q @ 250 MHz</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>5402</td>
<td>1 to 14 pF</td>
<td></td>
</tr>
<tr>
<td>5502</td>
<td>1 to 20 pF</td>
<td></td>
</tr>
<tr>
<td>5602</td>
<td>1 to 30 pF</td>
<td></td>
</tr>
<tr>
<td>5700</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
<tr>
<td>5501</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
<tr>
<td>5601</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
<tr>
<td>5701</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
<tr>
<td>5503</td>
<td>1 to 20 pf</td>
<td></td>
</tr>
<tr>
<td>5603</td>
<td>1 to 20 pf</td>
<td></td>
</tr>
<tr>
<td>5703</td>
<td>1 to 20 pf</td>
<td></td>
</tr>
<tr>
<td>5500</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
<tr>
<td>5600</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
<tr>
<td>5700</td>
<td>1 to 10 pf (500 VDC)</td>
<td></td>
</tr>
</tbody>
</table>

#### Specifications
- Material: Metalized polyester film
- Tolerances: ±10%
- Temperature range: -40°C to +125°C

### Materials
- Black, PMS 2805 blue, PMS 877 metallic silver

---

<table>
<thead>
<tr>
<th>Client</th>
<th>Johanson Manufacturing Corp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>Tab Sheet 3: Air Capacitors OUT</td>
</tr>
<tr>
<td>Job Number</td>
<td>101412</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Rad</td>
</tr>
<tr>
<td>Date</td>
<td>5.31.2006</td>
</tr>
</tbody>
</table>