The Thermo Scientific APEX 500 Rx systems offer a complete, highly sensitive and validated solution for end users and OEM pharmaceutical and nutraceutical production.

- Ultra high sensitivity
- Complete, adjustable, mobile system
- AuditCheck verification option

**high performance heads**
and systems for tablet and capsule applications
Thermo Scientific APEX 500 Rx
Metal Detector for Pharmaceutical Applications

Features & Benefits

- Cost-effective solution for tablet presses, capsule filling and deduster applications
- Straight-through product flow to prevent product damage
- High sensitivity—can detect pieces of metal as small as 0.3 mm
- Improves productivity with throughput up to 500K tablets or capsules per hour
- Easy to use—features graphical user interface (GUI) that uses a durable touch-sensitive keypad
- Thermo Scientific™ Quality Assurance Test (QAT) and AuditCheck™ features to verify performance
- Assists in compliance with GMPs in 21 CFR part 210 and 211
- Available as a complete system, OEM module or head and control panel only

AuditCheck

- Performance verification
- Automatically senses small changes in sensitivity

APEX Metal Detector Head

- Multi-coil high sensitivity design
- Low false reject rate, extremely stable
- Variety of aperture heights available
- Operating frequencies up to 900 kHz

Rejecter Assembly

- Made from stainless steel and FDA approved plastic
- Easy to disassemble and clean
- Fail-safe operation
- Straight-flow product path prevents product damage
- Lockable rejecter bin
- Optional round fittings for tubes

Easy Height and Angle Adjustment Handles

- Nominal infeed height of 890 mm (35 in)
- Flow angle of 35° ±10°
- Customized infeed chutes available
Thermo Scientific™ APEX 500 Rx metal detection systems provide the highest level of brand protection and compliance in the most demanding tablet and capsule production environments. The multi-coil design consistently delivers industry-leading sensitivity and stability, but isn’t impacted by product effects or environmental changes. Manufactured to meet stringent requirements for validated production, it uses only FDA compliant materials in all areas of the system that come in contact with the product.

**Control Panel**
- Pharma application software
- Set-up in minutes
- Multi-level password system
- Multilingual help text

**Handles**
- Large handles let you quickly and easily move the APEX 500 Rx metal detector
- Stainless steel—easy to clean and designed to last

**Available Options**
- High polish finish
- Pneumatic or electronic reject actuation
- AuditCheck Performance Validation System
- IQ/OQ/PQ validation packages (customized if required)
- Modbus Serial and Ethernet communications
- Product outlets designed for open flow or attachment to flexible tubes
- Head only or OEM module configurations for integration into dedusters

**Highest Level of Brand Protection. Lowest Cost of Ownership.**
The APEX 500 Rx metal detector improves productivity while providing the highest level of brand protection available. Available in three aperture sizes so you can match sensitivity to product rate and size. Every system is also configured for 900 kHz operation for optimal stainless steel detection.

**Total Quality Solution**
Designed to ensure the absence of even small slivers of metal, the APEX 500 Rx metal detector gives you the highest sensitivity possible at high flow rates—while preventing product damage. Tablets/capsules flow straight through the system to minimize potential damage.

As part of the Thermo Scientific APEX family, this metal detector incorporates a Total Quality Solution (TQS) package featuring Thermo Scientific AuditCheck. This unique system continuously monitors and validates the system’s performance to help eliminate costly recall and quarantine. With AuditCheck, you don’t need to perform manual testing to ensure high performance.
### General Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Stainless steel 304 straightlined case, high polish optional. All plastics used are FDA approved.</td>
</tr>
<tr>
<td>Protection Ratings</td>
<td>Type 3 enclosure, metal detector and control panel only</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10°C to +40°C (+14°F to +104°F)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>20% to 80% non-condensing</td>
</tr>
<tr>
<td>Electrical Supply</td>
<td>85 volts to 260 volts AC single phase plus earth ground; 47 Hz to 65 Hz, 100 watts maximum</td>
</tr>
<tr>
<td>Air Supply</td>
<td>5.5 bar (80 psi) nominal, 4 bar (60 psi) minimum - for AuditCheck and/or pneumatic rejector (not required for electronic rejector)</td>
</tr>
<tr>
<td>Product Speed</td>
<td>0.5 m/min (1.7 ft/min) to 100 m/min (330 ft/min) for the system</td>
</tr>
<tr>
<td>Outputs</td>
<td>6 Relays outputs; Relays: 250 volt AC 2 amp max, 50 volt DC 1 amp max.</td>
</tr>
<tr>
<td>Output Allocation</td>
<td>Reject 1, Reject 2, AuditCheck, Fault, Alarm, Warning, QAT lamp (selectable via menu)</td>
</tr>
<tr>
<td>Inputs</td>
<td>6 Inputs - Active 12v DC+12 volt auxiliary supply for input sensors</td>
</tr>
<tr>
<td>Input Allocation</td>
<td>Speed Sensor, Keylock, Product Select 1, Product Select 2, Infeed PEC, Reject Confirmation 1 and Bin Full External Suppression, Reject 1 Complete, Clear All Warnings/Alarms/Faults (selectable via menu), External Alarm, External Reset</td>
</tr>
<tr>
<td>Communications</td>
<td>Optional Modbus serial or Ethernet modules</td>
</tr>
<tr>
<td>Safety and Export Approvals</td>
<td>cCSAus, CE</td>
</tr>
<tr>
<td>Manufacturing Quality</td>
<td>ISO9001 certified</td>
</tr>
<tr>
<td>Help-Text, Users Manual Languages</td>
<td>English, Spanish, French, German, Italian, Dutch, Chinese, Czech, Russian, Polish, Thai, Koren and Brazilian Portuguese</td>
</tr>
</tbody>
</table>

### Thermo Scientific APEX 500 Rx Metal Detector System Dimensional Diagram (pneumatic reject system shown)

- **Rear View**
- **Side View**
- **Top View**

![Thermo Scientific APEX 500 Rx Metal Detector System Dimensional Diagram](image-url)

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