Product unit focused on innovation

All X-ray sources by Thales are designed, developed and produced in a production plant certified to ISO 9001:2000 and ISO 14001. Located in Thonon, southeast France, our plant covers 2000 square meters of clean rooms. Recognized worldwide as a center of expertise in this very demanding technology, our development teams have come up with a string of innovative solutions.

THALES COMPONENTS & SUBSYSTEMS
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Thales Electron Devices S.A. - 2, rue Marcel Dassault - 78140 Vélizy-Villacoublay - France
Capital de 30998925 euros - SIRET: 34072362600099 - RC S Versailles 340723626 - S.129/2010.01

This document cannot be considered to be a contractual specification. This information herein may be modified without notice.

Non-Destructive Testing/Security
Monopolar metal-ceramic X-ray tubes

X-ray sources by Thales boost the performance of test and inspection systems.

Thales is a global leader in the radiological imaging and RF industrial heating markets, and a major player in non-destructive testing (NDT) and security applications.

With advanced components installed in thousands of test and inspection systems worldwide, Thales has the technological expertise and innovative mindset needed to meet requirements in a wide range of sectors, including the automobile, oil, aerospace and security industries.

We are especially involved in our customers’ new development projects, helping them choose and apply the technologies that best meet their exact needs.

Tailored to market requirements

- Best resolution:
  Small focal spot: 1.0 mm
  Large focal spot: 3.0 mm

- High power

- Robust

- Versatile

For needs over 30 mA, please contact us.

For further information: rfm.s.marketing@thalesgroup.com

A growing number of international customers, both OEMs and end-users, call on Thales for their non-destructive testing (NDT) and security applications.

www.thalesgroup.com

Non-Destructive Testing/Security
Monopolar metal-ceramic X-ray tubes
### Monopolar tube range

#### High-tech products

- Thales's X-ray tubes are based on a metallic-ceramic technology that ensures the production of compact, reproducible tubes, offering excellent resistance to high temperatures. This design also means that your systems will generate precise, reliable measurements, and enjoy long operating life.

#### A broad range of products

- Since adding AEG's products to its lineup, Thales has capitalized on its technology skills to offer a broad range of innovative, high-quality products that fully meet today's market requirements.

### Product characteristics

<table>
<thead>
<tr>
<th>Feature</th>
<th>Industrial benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust design</td>
<td>High resistance to severe operating conditions</td>
</tr>
<tr>
<td>High-voltage rating (150 kV)</td>
<td>Optimally suited for tubes</td>
</tr>
<tr>
<td>Mechanical strength</td>
<td>Upper mechanical limit</td>
</tr>
<tr>
<td>High current</td>
<td>Upper operating efficiency</td>
</tr>
<tr>
<td>High voltage resistance</td>
<td>Excellent reproducibility of measurement times</td>
</tr>
<tr>
<td>High penetration</td>
<td>Upper limit of penetration for users</td>
</tr>
</tbody>
</table>

### Customer support and technical assistance around the world

- You can always count on our engineers and technical assistance teams for local support. We also work with you on your development programs and can make products to your exact requirements.

### Inspection, identification or real-time testing... a tube for each application

- The voltage range determines the energy range for the photons emitted by the source.

### Table: Reference THX 160

<table>
<thead>
<tr>
<th>Nominal voltage (kV)</th>
<th>Focal spot size (mm)</th>
<th>Power (W)</th>
<th>Filament current (A)</th>
<th>Typical filament voltage (V)</th>
<th>Inherent filtration</th>
<th>Target material</th>
<th>Anode angle (°)</th>
<th>Cooling</th>
<th>Minimum cooling water flow (l/min.)</th>
<th>Inlet cooling water temperature max. (°C)</th>
<th>Radiation coverage (°)</th>
<th>Type of terminal</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
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<td>160</td>
<td>1040</td>
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<td>21</td>
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<td>35</td>
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**Powerful, reliable X-ray sources, the key to your system**

**Hand luggage screening**

**Tomography imaging**

**Casting inspection**

**Pipe welding inspection**

**Savaging**

**Food Inspection**

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