Fine separation cuts can be made in materials such as glass, ceramic, plastic, metal - to name just a few - with precision diamond wire saws from Diamond WireTec. However, the most common application is the cutting of samples made of various substances, so-called hybrid materials.

With a cutting surface area of, for example, 245 x 245 mm and a blade clearance of only 0.2 to 0.5 mm - depending on the diamond wire strength - samples can be cut without structural changes and, if necessary, without cooling lubricant. Bevels breaks or smearing are also not to be expected. Separation cuts with wall strengths of less than 1 mm can be made.

When developing our precision diamond wire saws, we place great emphasis on simple operation, a high level of safety and long lifetimes. This starts with the selection of materials, the use of industrial-strength and standardised components, protective covers on moving machine parts and menu-guided control as well as a wide variety of installed monitoring sensors.

Our current line of standard diamond wire saws stands out first of all due to the size of the cutting range of the workpieces/samples.

**THE MAXIMUM CUTTING SURFACES ARE:**

- DWS100: 85 x 85 mm
- DWS175: 170 x 170 mm
- DWS250: 245 x 245 mm

**ALL OF OUR PRECISION DIAMOND WIRE SAWS...**

- Are equipped with sturdy industrial engines and integrated absolute encoders
- Have safety sensors for wire break and separation cut limit stops
- Can be operated in dry and wet cutting processes
- Are equipped with a wire cleaning and corrosion protection unit
- Do not generate any considerable amount of heat when making the separation cut
- Consist of rust-free materials such as aluminium, stainless steel and plastic
- Feature a micrometre workpiece infeed (optional for DWS175 and DWS250)
- Have quality control system with large and colourful touch panel
- Enable cold, precise and plane-parallel separation cuts
- Feature automatic winding of the wire onto the spool
## TECHNICAL DATA

<table>
<thead>
<tr>
<th>Machine type</th>
<th>DWS100</th>
<th>DWS175</th>
<th>DWS250</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing</strong></td>
<td>Stainless steel aluminium construction</td>
<td>Stainless steel aluminium construction</td>
<td>Stainless steel aluminium construction</td>
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<tr>
<td><strong>Safety</strong></td>
<td>Acc. to machinery directive</td>
<td>Acc. to machinery directive</td>
<td>Acc. to machinery directive</td>
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<tr>
<td><strong>Machine dimensions</strong></td>
<td>H410 x L530 x B350 mm</td>
<td>H770 x L570 x B350 mm</td>
<td>H850 x L620 x B400 mm</td>
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<tr>
<td><strong>Machine weight</strong></td>
<td>35 kg</td>
<td>65 kg</td>
<td>85 kg</td>
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<tr>
<td><strong>Drive / Supply</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Engine power</strong></td>
<td>120 Watt</td>
<td>120 Watt</td>
<td>120 Watt</td>
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<tr>
<td><strong>Power supply</strong></td>
<td>100-240 V / 50-60 Hz</td>
<td>100-240 V / 50-60 Hz</td>
<td>100-240 V / 50-60 Hz</td>
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<tr>
<td><strong>Diamond wire</strong></td>
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</tr>
<tr>
<td><strong>Wire diameter</strong></td>
<td>0.2 - 0.4 mm</td>
<td>0.2 - 0.4 mm</td>
<td>0.3 - 0.5 mm</td>
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<tr>
<td><strong>Diamond wire length</strong></td>
<td>19 m</td>
<td>28 m</td>
<td>28 m</td>
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<tr>
<td><strong>Spool diameter</strong></td>
<td>100 mm</td>
<td>175 mm</td>
<td>250 mm</td>
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<tr>
<td><strong>Control unit</strong></td>
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<tr>
<td><strong>User interface</strong></td>
<td>Colour touch panel</td>
<td>Colour touch panel</td>
<td>Colour touch panel</td>
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<tr>
<td><strong>Protection via access code</strong></td>
<td>Can be deactivated</td>
<td>Can be deactivated</td>
<td>Can be deactivated</td>
</tr>
<tr>
<td><strong>Cutting</strong></td>
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</tr>
<tr>
<td><strong>Cutting procedure</strong></td>
<td>Diamond wire saw cut</td>
<td>Diamond wire saw cut</td>
<td>Diamond wire saw cut</td>
</tr>
<tr>
<td><strong>Cutting pressure</strong></td>
<td>Constant/Gravity</td>
<td>Constant/Gravity</td>
<td>Constant/Gravity</td>
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<tr>
<td><strong>Cutting speed</strong></td>
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<td>0 - 4 m/Sek.</td>
<td>0 - 4 m/Sek.</td>
</tr>
<tr>
<td><strong>Samples</strong></td>
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<tr>
<td><strong>Sample weight max.</strong></td>
<td>0.5 kg</td>
<td>15 kg</td>
<td>20 kg</td>
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<tr>
<td><strong>Sample dimensions</strong></td>
<td>85 mm x 85 mm</td>
<td>170 mm x 170 mm</td>
<td>245 mm x 245 mm</td>
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<tr>
<td><strong>Clamping device</strong></td>
<td>Ceramic disc</td>
<td>Slot table</td>
<td>Slot table</td>
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<tr>
<td><strong>Wire cleaning</strong></td>
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<tr>
<td><strong>Alternative</strong></td>
<td>Dry or air jet</td>
<td>Dry or air jet</td>
<td>Dry or air jet</td>
</tr>
</tbody>
</table>

### SAMPLE

- **Eprom**
- **Spark plug**
- **Internal combustion engine**
- **Coin**

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For further information see: [www.diamondwiretec.com](http://www.diamondwiretec.com)