We design, manufacture and supply wide range of general-purpose and special abrasive tools...according to Your needs!

RAIL Industry
RAIL INDUSTRY

In the railway construction and maintenance, a wide range of abrasive tools is commonly used. The tool selection depends on the type of grinding operation. Typical operations are: rail head and edge grinding, rail cutting-off, crossing grinding and welding joint grinding. Main task of grinding operations is to restore key rail surfaces and remove rail defects that appear during everyday use. Correctly carried out grinding operations with application of optimally selected characteristics of grinding wheels increase safety and travel comfort.

ANDRE offers a huge range of abrasive tools dedicated for railway construction and maintenance ensuring required surface quality and high efficiency of the tool.

- RAIL HEAD GRINDING
- RAIL HEAD GRINDING WITH PROFILE GRINDING WHEEL
- RAIL TRACK CUTTING-OFF
- SWITCH AND CROSSING GRINDING
- WELDING JOINT GRINDING
The main purpose of this grinding process is to restore the rail head profile and remove rail defects which appear due to progressive wear. The operation is performed using lightweight track mounted grinding machines or heavy duty machines.

ANDRE abrasive tools proposed for the operation are based on our large experience in railway industry and allow to achieve required surface quality together with high efficiency.

### Examples of implemented abrasive tools in industry [*]

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions [mm]</th>
<th>Technical characteristics</th>
<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3120</td>
<td>66/56 × 90 × 155/140</td>
<td>99A36T8520</td>
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<tr>
<td>35X</td>
<td>250 × 85 × 150</td>
<td>32RA16R78765</td>
<td>50</td>
</tr>
<tr>
<td>36</td>
<td>250 × 85 × 150</td>
<td>95A16PB97</td>
<td>25</td>
</tr>
<tr>
<td>36</td>
<td>150 × 75 × 56</td>
<td>95A16PB97</td>
<td>50</td>
</tr>
</tbody>
</table>

[*] For the full range of dimensions and available technical characteristics ask the Sales Department
Examples of implemented abrasive tools in industry [*]

<table>
<thead>
<tr>
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<th>Dimensions [mm]</th>
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<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>36X</td>
<td>260 × 85 × 153</td>
<td>10ZRA12W8B732</td>
<td>50</td>
</tr>
</tbody>
</table>

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Examples of implemented abrasive tools in industry [*]

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<thead>
<tr>
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<th>Speed [m/s]</th>
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<tbody>
<tr>
<td>5</td>
<td>250 × 32 × 25,4</td>
<td>95A16P6 B97</td>
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</table>

Examples of implemented abrasive tools in industry [*]

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions [mm]</th>
<th>Technical characteristics</th>
<th>Speed [m/s]</th>
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</thead>
<tbody>
<tr>
<td>6002</td>
<td>125 × 65 × M20</td>
<td>95A16Q B</td>
<td>35</td>
</tr>
<tr>
<td>6002</td>
<td>150 × 65 × M20</td>
<td>95A16Q B97</td>
<td>40</td>
</tr>
</tbody>
</table>

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<tr>
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<th>Technical characteristics</th>
<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>6003</td>
<td>100 × 110 × M20L - W20E25</td>
<td>95A20Q, B</td>
<td>40</td>
</tr>
<tr>
<td>6003</td>
<td>125 × 65 × M20 - W32E13</td>
<td>95A14Q, B</td>
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</tr>
<tr>
<td>6003</td>
<td>150 × 55 × M20 - W42,5E18</td>
<td>95A16NB</td>
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<tr>
<td>6001</td>
<td>80 × 72 × 5/8&quot;-W20E20</td>
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<tr>
<td>6003X</td>
<td>100 × 110 × M20L-W25E24</td>
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<tr>
<td>6005</td>
<td>120 × 110 × M20L-W25E20</td>
<td>95A16P5B559</td>
<td>40</td>
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</tbody>
</table>

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RAIL HEAD GRINDING WITH PROFILE GRINDING WHEEL | TYPE 1X

In this grinding process a grinding wheel type 1 with a profile on its periphery is used on heavy duty railway grinding machine. ANDRE profile grinding wheels dedicated to this operation have been designed to minimize the impact of temperature on grinding process. Technical characteristics of the wheels we offer ensure required surface quality and long life of the grinding wheel.

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions [mm]</th>
<th>Technical characteristics</th>
<th>Speed [m/s]</th>
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</thead>
<tbody>
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<td>53AY462112VTE10PP</td>
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<tr>
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<td>1X</td>
<td>800 × 65 × 305,2</td>
<td>53AY462112VTE10PP</td>
<td>35</td>
</tr>
</tbody>
</table>

RAIL TRACK CUTTING-OFF | TYPE 41

The rail track cutting operation is carried out using manual petrol cutters equipped with special mountings. A very important factors affecting the progress of the work during cutting is the time of operation and wheel efficiency. While designing cutting-off wheels ANDRE has made every effort to ensure that the cutting operation is fast, safe and the tool life is long enough.

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions [mm]</th>
<th>Technical characteristics</th>
<th>Version</th>
<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>300 × 3,5 × 32</td>
<td>95A 24R BF</td>
<td>RAIL</td>
<td>100</td>
</tr>
<tr>
<td>41</td>
<td>350 × 3,5 × 32</td>
<td>95A 24R BF</td>
<td>RAIL</td>
<td>100</td>
</tr>
<tr>
<td>41</td>
<td>400 × 4 × 32</td>
<td>95A 24R BF</td>
<td>RAIL</td>
<td>100</td>
</tr>
</tbody>
</table>
The main task of this process is to optimize rail profile and preventing the development of contact-fatigue defects. In this operation mobile track mounted grinders are used. ANDRE grinding wheels dedicated to this machining process will allow to achieve required surface quality and desired shapes. When designing grinding wheels, we take into account the needs of our customers in terms of cost optimization and therefore we can offer tools with optimal value for money.

Examples of implemented abrasive tools in industry [*]

<table>
<thead>
<tr>
<th>Type</th>
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<th>Technical characteristics</th>
<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>6006</td>
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<td>10ZRA16T7B</td>
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<tr>
<td>2X</td>
<td>280 × 18 - W36</td>
<td>10ZRA16T5B</td>
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<tr>
<td>1</td>
<td>200 × 25 × 20</td>
<td>96A16L6B97F3</td>
<td>63</td>
</tr>
</tbody>
</table>

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WELDING JOINT GRINDING | TYPE 11 | TYPE 27

In this grinding operation welding joints are machined to profile the weld to rail shape. For these works manual grinders are often used.
ANDRE is consistently focusing on the quality of the products, taking into account primarily the safety of grinding wheel users and high efficiency of offered tools.

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<table>
<thead>
<tr>
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<th>Dimensions [mm]</th>
<th>Technical characteristics</th>
<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>110/90 × 55 × 22,2 - W20E12K48</td>
<td>95A16QB97</td>
<td>50</td>
</tr>
</tbody>
</table>

11 - D/β × T × H - W...E...K...

Examples of implemented abrasive tools in industry [*]

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions [mm]</th>
<th>Technical characteristics</th>
<th>Version</th>
<th>Speed [m/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>125 × 8 × 22,2</td>
<td>95A30Q8F</td>
<td>STANDARD</td>
<td>80</td>
</tr>
<tr>
<td>27</td>
<td>230 × 8 × 22,2</td>
<td>95A24Q8F</td>
<td>STANDARD</td>
<td>80</td>
</tr>
</tbody>
</table>

Several product lines and versions available: ECO LINE, PRO LINE (version: STANDARD, EXTRA, METAL/INOX) and MASTER LINE

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