RSP Technology develops, produces and sells aluminium super alloys with high end properties. By using its own Meltspinning process, ultra fast cooling rates can be reached, converting more than 1 million degrees per second. As a result very fine nanostructured alloys with new functionalities are being developed and produced.

This overview gives an indication of the various alloys and their different characters and performances. This is a basis for covering a broad field of applications. Depending on customers requirements, RSP can offer a matching solution with a well balanced property profile. In case this is not enough, RSP is always listening to end customer needs, and is able to develop alloys in co-operative projects.

RSP alloys can be produced in the following standard dimensions:

- Bars: diameters 18, 22, 26, 35, 45, 60, 65, 85, 105 mm
- Billets: diameters 200, 290, 360, 450, 500, 1,000 mm
- Custom made (near net) forgings
- Any other size can be custom made in round, rectangular or any other shape up to 1,000 mm
- In co-operation with partner Hittech Group, RSP is able to offer parts and assemblies according to customers specification.

### Typical composition

<table>
<thead>
<tr>
<th>Alloy</th>
<th>Condition</th>
<th>Typical composition</th>
<th>Physical properties</th>
<th>Mechanical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSA-6061</td>
<td>T6</td>
<td>Al Si0.6 Cu0.3 Mg1 (AA6061)</td>
<td>p [gr/cm³] 2.70, q [10⁻⁶/K] 22.6, E-mod [Gpa] 70</td>
<td>UTS [Mpa] 340, YS [Mpa] 315, Elongation [%] 16, Hardness [HB] 110</td>
</tr>
<tr>
<td>RSA-905</td>
<td>AE</td>
<td>Al Fe2.5 Ni5 Cu2.5 Mn1 Mo0.8 Zr0.8</td>
<td>p [gr/cm³] 2.95, q [10⁻⁶/K] 19.0, E-mod [Gpa] 90</td>
<td>UTS [Mpa] 600, YS [Mpa] 480, Elongation [%] 5, Hardness [HB] 180</td>
</tr>
<tr>
<td>RSA-905</td>
<td>AH &gt;120mm</td>
<td>Al Fe2.5 Ni5 Cu2.5 Mn1 Mo0.8 Zr0.8</td>
<td>p [gr/cm³] 2.95, q [10⁻⁶/K] 19.0, E-mod [Gpa] 90</td>
<td>UTS [Mpa] 410, YS [Mpa] 250, Elongation [%] 2, Hardness [HB] 190</td>
</tr>
<tr>
<td>RSA-462</td>
<td>T6</td>
<td>Al Si24 Cu1.8 Mg1.2 Fe0.4 Ni0.4</td>
<td>p [gr/cm³] 2.63, q [10⁻⁶/K] 16.7, E-mod [Gpa] 90</td>
<td>UTS [Mpa] 470, YS [Mpa] 420, Elongation [%] 2.5, Hardness [HB] 185</td>
</tr>
<tr>
<td>RSA-431</td>
<td>T6</td>
<td>Al Si30 Cu1.5 Mg1.2 Fe0.4 Ni0.4</td>
<td>p [gr/cm³] 2.60, q [10⁻⁶/K] 15.5, E-mod [Gpa] 95</td>
<td>UTS [Mpa] 410, YS [Mpa] 390, Elongation [%] 1.5, Hardness [HB] 190</td>
</tr>
<tr>
<td>RSA-501</td>
<td>AE</td>
<td>Al Mg5 Mn1 Sc0.8 Zr0.4 (Scalmalloy)</td>
<td>p [gr/cm³] 2.67, q [10⁻⁶/K] 23.0, E-mod [Gpa] 70</td>
<td>UTS [Mpa] 575, YS [Mpa] 525, Elongation [%] 12, Hardness [HB] 160</td>
</tr>
</tbody>
</table>

* Marked alloys are under development.