

RS Alloys

High Strength



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.

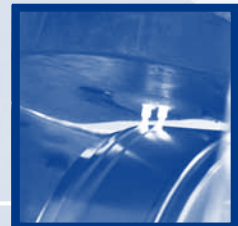
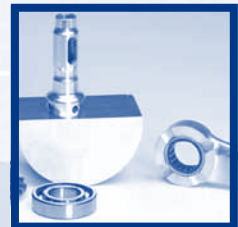
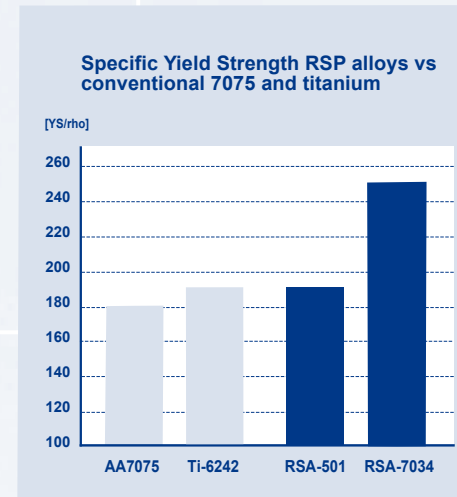
RSP High Strength Alloys offer highest mechanical properties possible in aluminium. They form the gap between conventional aluminium and titanium.

RSA-7034 is a well balanced alloy combining high strength and fatigue performance with good ductility and fair corrosion behaviour. **RSA-501** (Scalmalloy) offers a unique property compromise combining high strength and high ductility and high corrosion resistance with good weldability.

Machinability can be qualified as easy. Application areas include machine building, racing, sport equipment, fasteners, aerospace and orthopedics.

RSP alloys can be produced in the following standard dimensions:

- Extruded bars: diameters 22, 45, 60 mm
- Custom made (near net) forgings
- Any other size can be custom made in round, rectangular or any other shape.
- In co-operation with shareholder Hittech Group, RSP is able to make parts and assemblies according to customers specification.



Alloy	Condition	Typical composition	Physical properties					Mechanical properties					Fracture toughness	Corrosion resistance	Weldability	Specific Yield Strength [E/p]
			Density ρ [gr/cm ³]	Thermal Expansion α [10 ⁻⁶ /K]	Stiffness E-mod [Gpa]	Specific Stiffness [Gpa/(g/cc)]	Thermal Conductivity k [W/m.K]	Ultimate Tensile Strength UTS [Mpa]	Yield Strength YS [Mpa]	Elongation e [%]	Hardness [HB]	Fatigue s[Mpa]				
RSA-501	AE	Al Mg5 Mn1 Sc0,8 Zr0,4 (Scalmalloy)	2,65	23	70	26	140	575	525	12	160	400	35	++++	++++	198,1
RSA-7034	T6	Al Zn11 Cu1 Mg2,3 (AA7034)	2,89	23	71	25	130	750	730	8	215	425	25	-	-	252,6
AA7075	T6	Al Zn5,6 Cu1,6 Mg2,5	2,80	23,5	72	26	130	575	505	8	150	225	25	-	-	180,4
Ti-6242	A	Ti Al6 Sn2 Zr4 Mo2	4,54	8,0	114	25	7	940	870	15	304	480				191,6