



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.

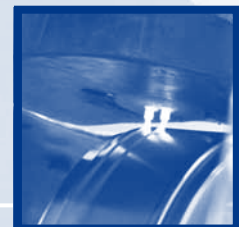
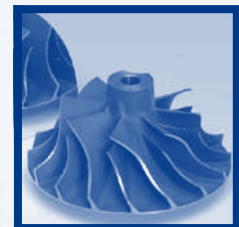
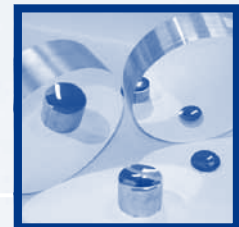
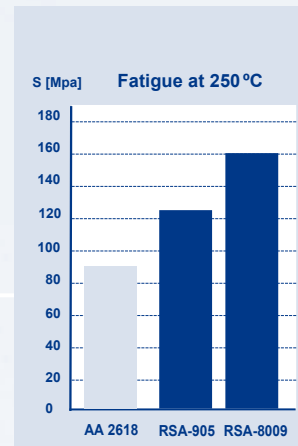
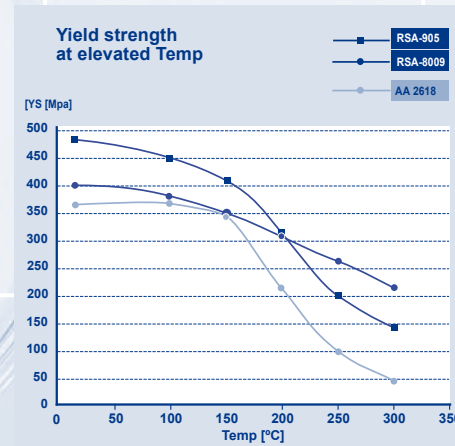
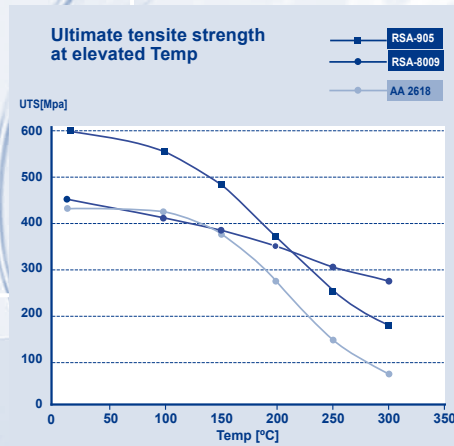
RSP has developed an alloy line for high temperature applications such as impellers, pump housings, valves, vanes and pistons.

Advantages include improved strength, yield and fatigue at temperatures in the range of 150 – 450 C°, replacing titanium, stainless steel and conventional aluminium alloys 2618, 2014, 4032. 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, 80, 90 mm
- Custom made (near net) forgings
- In co-operation with shareholder Hittech Group, RSP is able to make parts and assemblies according to customers specification.



		Physical properties					Mechanical properties									
Alloy	Condition	Typical composition	Density ρ [gr/cm³]	Thermal Expansion α [10 <sup>-6</sup> /K]	Stiffness E-mod [Gpa]	Specific Stiffness [Gpa/(g/cc)]	Thermal Conductivity k [W/m.K]	Elongation e [%]	Hardness [HB]	Ultimate Tensile Strength UTS [Mpa] at Temp:						Fatigue S [Mpa] 250°C
										20°C	100°C	150°C	200°C	250°C	300°C	
RSA-905	AE	Al Fe2,5 Ni5 Cu2,5 Mn1 Mo0,8 Zr0,8	2,95	19,0	90	31	115	7	180	600	575	500	375	260	180	125
RSA-8009	AE	Al Fe8,7 Si1,8 V1,3 (AA8009)	2,92	19,0	90	31	115	15	140	460	410	380	350	310	270	160
RSA-4019	AE	Al Si20 Fe5 Ni2 (AA4019)	2,75	17,3	90	33	120	2,5	140	400	390	380	330	250	175	125
RSA-461	T6	Al Si21 Cu4 Mg1,2 Fe2,5 Ni1,5	2,76	17,1	90	33	120	1	210	550	465	440	380	300	180	-
AA 2618	T6	Al Cu2,3 Mg1,6 Fe1 Ni1	2,76	23,2	72	26	135	10	130	440	425	375	270	150	75	90

Exposure time at temperature prior to tensile testing = 1.000 hours