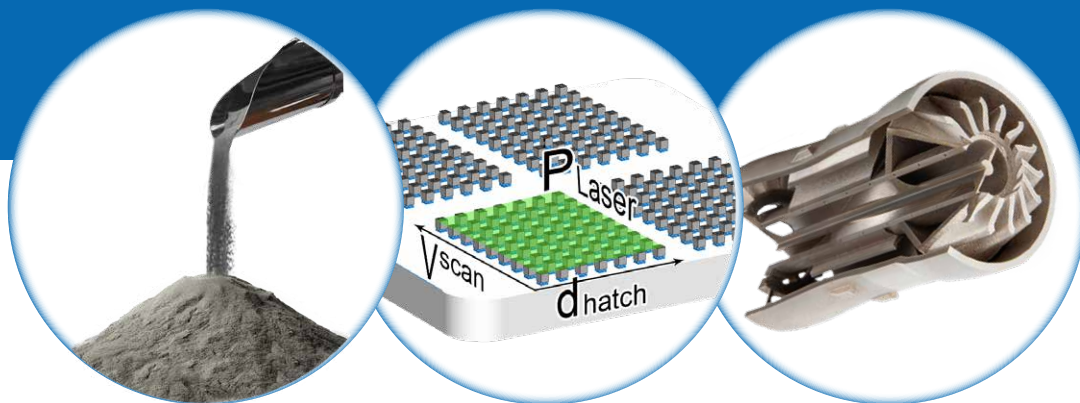


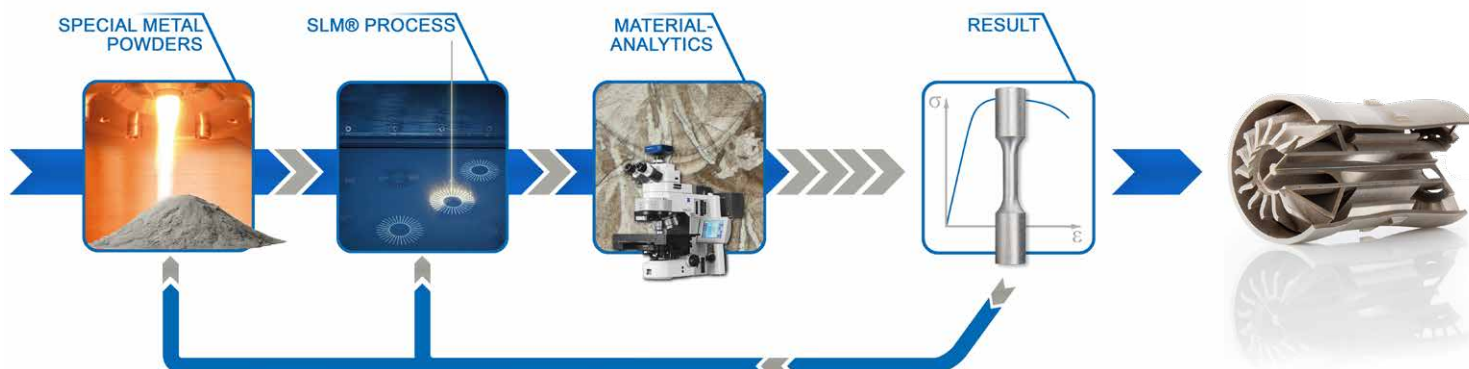
HIGH SPEED Material Qualification for Additive Manufacturing



Individual Fast Holistic

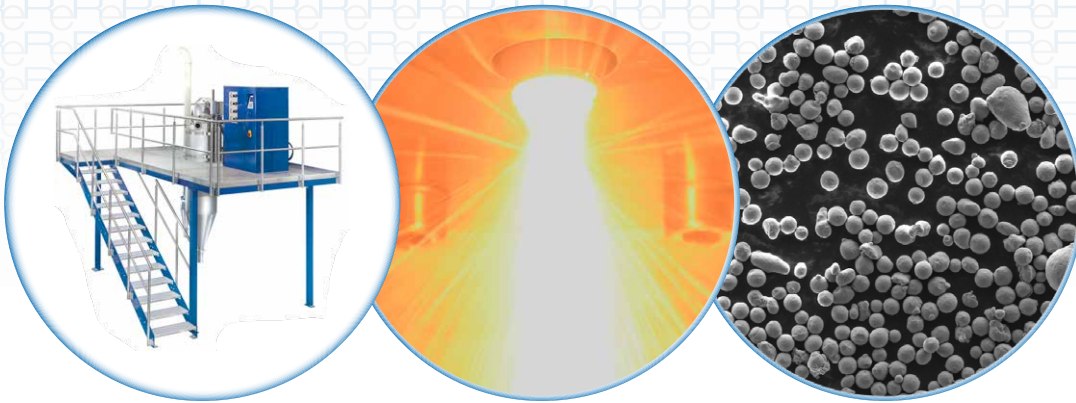
The in-house process chain at Rosswag enables holistic and rapid material qualification processes for additive manufacturing. Short qualification cycles from the atomization of individual alloys to metal powder, via parameter studies in the SLM® process, to the analysis of test specimens. You will get initial results within a few weeks.

Material qualification in a few weeks



ALLE PROZESSE AUS EINER HAND





Metal Powder for Additive Manufacturing

Using the in-house atomization plant, individual metal powders can be produced in small quantities (up to approx. 50 kg) especially for the use in additive manufacturing. After a first quality check, the particle size distribution will be adjusted by sieving and air classification.

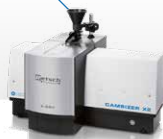
Technical data

Atomization gas	Argon (up to 500 °C)
Particle size	+10 -150 µm
Melt temperature	up to 1750 °C
Crucible material	Al ₂ O ₃ / graphite
Crucible volume	~3 liters
Alloys	Fe, Ni, Cu, Sn, Co...

CS-ANALYSIS



PARTICLE SIZE PARTICLE SHAPE



CHEMICAL ANALYSIS



MICROSECTION



STRUCTURE AND POROSITY ANALYSIS



ONH-ANALYSIS



Analytics at Rosswag

In our state-of-the-art materials laboratory, the metal powders and specimens from the parameter studies are fully analyzed. This allows even the smallest deviations in the alloy composition to be identified and the resulting material properties to be determined by microsection and tensile tests.

