Investment Casting
Deep industry expertise and specialist know-how provides ZOLLERN FOUNDRY TECHNOLOGY to offer customized solutions resulting in highly sophisticated products for various industries worldwide. ZOLLERN delivers state-of-the-art investment castings, working with a wide range of materials like steel, aluminium, copper, super alloys (Ni- and Co-based).
Flexible and Economical

Technical Characteristics
- freedom of geometry - high complex shapes
- facility for complex inner contours
- wide range of weight - 1 g to 20 kg
- big variety of alloys
- high degree of dimensional accuracy
- high standard of surface quality

Economical Advantages
- design-optimized and bionic shapes
- multifunctional components
- optimal alloy
- near-net-shape
- reduced machining

Applications
- vanes, blades and heat shields (aerospace and IGT)
- housings (optics, electronics, gear boxes, pumps, valves)
- turbine wheels (automotive and truck, IGT)
- structural and mechanical components
ZOLLERN Technologies

- Gravity casting
- Low-pressure casting
- Vacuum casting

Our Special casting and solidification methods open up extra aspects of feasibility and quality:

- SOPHIA® process for high-strength thin-walled aluminium components
- Single Crystal (SX), Directional Solidification (DS) and Equiax (CC) casting
- Stress and casting simulation ensure optimized component engineering and best economic production layout

The TNO Sinplex-Casting – winner of the Aluminum Award 2014 / category „Aerospace and Automotive“ – is an ultra-thin-walled miniaturised and extremely lightweight navigation subsystem for future space missions. The casting with its complex structure gets its particular characteristics by being produced with the SOPHIA-procedure.
BMW Superbike rear swing arm is the winner of the Aluminum Award 2012 / category „Consumer Products - Innovation“. The lightweight casting for BMW racing motorbikes manufactured in the SOPHIA® aluminum investment casting process combines fastest lap-times with cost saving.