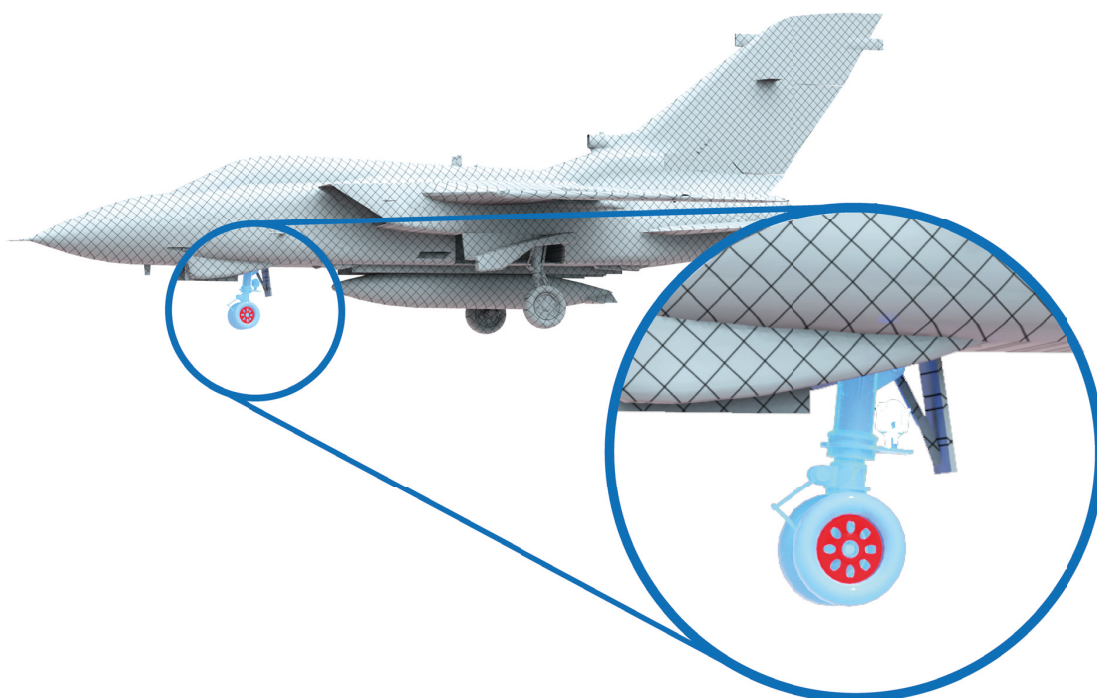


APPLICATION EXAMPLE ▶ Aviation ▶ Wheel rim (1)



Task

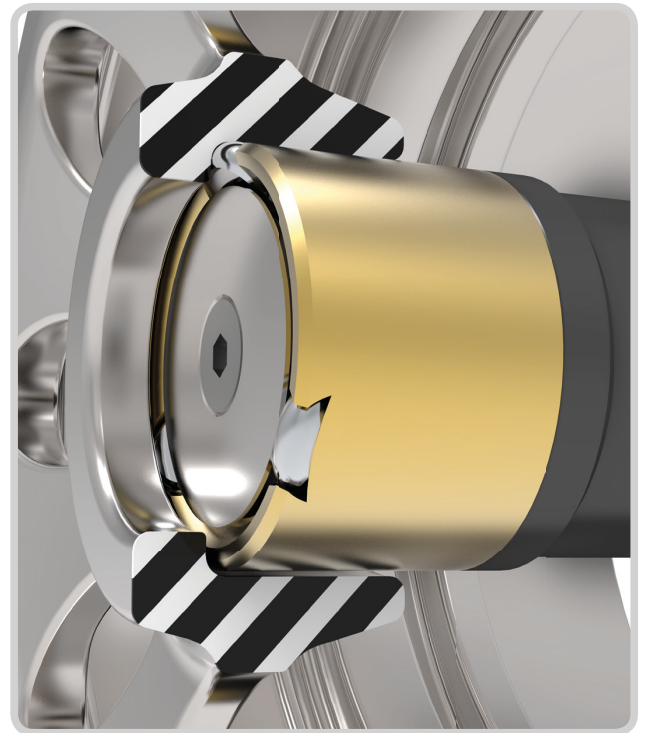
Increase fatigue strength and eliminate crack growth





Solution

Deep Rolling of the bearing bore with a plunge-in process



User benefits

- Increase fatigue strength by a factor of about **5x**
- Decrease production costs by a factor of about **2x**
- Life time of wheel rim increased about by a factor of about **3x**

Details

- Workpiece Wheel rim
- Part of Aircraft landing gear
- Material Aluminium alloy

Parameter

- Tool RH
- Circumferential speed 100 m/min
- Feed rate Plunge process
- Cycle time 6 seconds