

**EFFICIENT SINTERING AND HARDENING OF LOW ALLOY IRON
POWDER COMPACTS IN ONE STEP IN THE CONVEYOR BELT
SINTERING FURNACE**

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For more than a decade components of low alloy iron powder with nickel and/or molybdenum for general engineering applications have been manufactured from powder metal.

In the time to come such PM steel components will gain increasing significance. Because of various manufacturing difficulties they are mostly produced in two separate steps — sintering and hardening — which means high energy and labour requirements.

The paper describes how such PM components are produced in just one run through a conveyor belt furnace with automatic atmosphere control and gas quenching zone. Energy and labour costs are low and reproducible quality is excellent. The mechanical properties obtained with some powder alloys are presented as well.