Modern automation systems for powder compaction presses

Abstract:

Modern and fast powder compaction systems are imperative to compensate ever rising costs and are in high demand to produce large quantities of increasingly complex parts. To achieve high productivity in compaction and handling alike, a solution with a high degree of flexibility for the individual automation is required. Handling of the parts from the press to the sinter trays is often paired with multiple inspection steps followed by secondary machining and even handling of the sinter trays and stacks. Automation of dimension measurements and other inspections may include parameter feedback to the press controls which can further help to optimize production parameters and early failure part detection/separation.

Ideally press and automation share one controller which avoids an additional interface and enables a faster and seamless integration of the automation into the press cycle.