



# The Digital Transformation of Manufacturing Product Specifications

In the manufacturing industry, the shift from a drawing-oriented focus to a digital-driven specification approach has revolutionized the way we design, produce, and service products. This transformation, driven by advancements in technology and the need for more efficient and effective processes, has significant business benefits.

## The Shift from Drawing-Oriented Focus

Traditionally, manufacturing was heavily reliant on pen-and-paper drawings and physical drawing boards. The primary goal of this way of working was, next to specify the design, to ensure the availability of direct materials needed for the production start. However, this approach has its limitations and does not support modern and current needs. It was time-consuming, prone to errors, and lacked the capabilities and flexibility needed in today's fast-paced manufacturing environment. Unfortunately, the traditional way of working still affects the processes in most manufacturing companies.

## Embracing Digital-Driven Specifications

The advent of digital technology has initiated a new era for manufacturing product specifications. Instead of static drawings, we now use dynamic digital models that represent the product at any given maturity level. These models are not just visual representations; they are comprehensive digital twins that specify the product across design, manufacturing, and service processes.

Digital-driven specifications are based on materials, modules, and product objects. They provide an end-to-end view of the product, encompassing all its aspects and stages of maturity. This shift enables manufacturers to have a complete understanding of the product, leading to improved efficiency and quality.

# Business Benefits of Digital-Driven Product Specifications

The shift to digital-driven specifications offers several business benefits:

1. **Efficiency:** Digital models streamline the design-to-production process, reducing time and effort.
2. **Accuracy:** Digital specifications minimize errors and improve cost and CO2 footprint estimations.
3. **Flexibility:** Digital models can be easily updated or modified as needed.
4. **Collaboration:** Digital models facilitate better communication and collaboration among internal teams, external teams, and partners.
5. **Product Quality:** With a comprehensive view of the product, manufacturers can support much higher quality at every stage.

In conclusion, the shift from drawing-oriented focus to digital-driven product specifications is a game-changer in the manufacturing industry. It's an investment that delivers significant returns in terms of efficiency, accuracy, flexibility, collaboration, and product quality.

As we continue to embrace this digital transformation, we look forward to seeing further advancements and innovations in manufacturing product specifications.

How far along are you in this process?

**Activator Group International** provides resources for the digital transformation in manufacturing companies with a business-oriented and vendor-independent mindset.