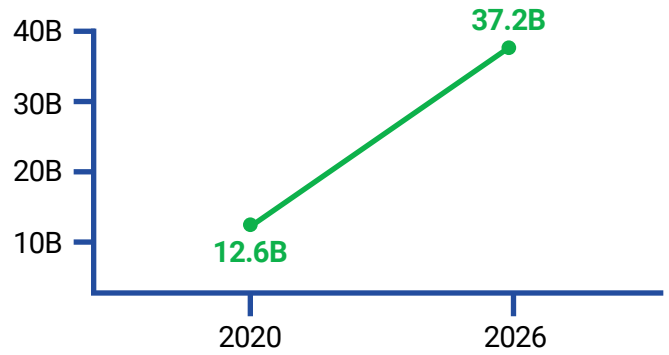


ADDITIVE MANUFACTURING STANDARDS TO WATCH

Additive manufacturing has gone mainstream. What started with 3D printing of prototypes has evolved into full-blown manufacturing. It is allowing companies to produce parts on demand, reduce time to market, and bring supply chains closer to the source.

The global market for 3D printing products and services reached **\$12.6 billion** in 2020 and is projected to reach **\$37.2 billion** by 2026.¹



NFPA 652 AND 654

These two standards cover the basic methodology for analyzing a potential dust hazard. They are very general, performance-based standards. There are also specific standards for agricultural dusts and wood and cellulosic dusts, but no specific standard for dusts in additive manufacturing using nonmetallic dusts/powders. However, the standards clearly outline the required hazard analysis process which needs to be used to identify fire and explosion potential.²



NFPA 484

This standard applies to metal dusts. Chapter 13 specifically addresses additive manufacturing and has provisions for safe system shutdown, usage of conductive powder, shipping and handling containers, and much more. It also explains that a dust hazard analysis is needed to examine the inerting process; and gives guidance on personal protective equipment and fire/explosion protection.



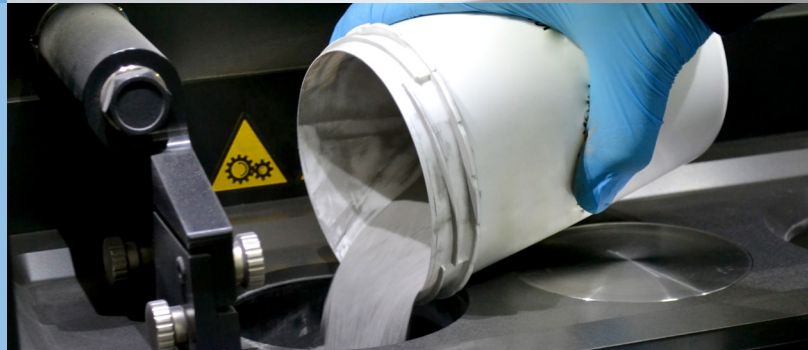
ISO/ASTM 52900 THROUGH 52950

These are detailed standards for all aspects of additive manufacturing equipment design/process controls. They specify requirements for manufacturers in a variety of industries (including automotive, rail, aerospace, and medical) using additive manufacturing. The standards help companies implement lean, quality-assured additive manufacturing processes; ensure consistent, reproducible quality of industrial additive manufactured parts; improve stakeholders' trust in the additive manufacturing process; and enable regulation between purchasers and manufacturers.



ISO 17296

This standard provides general principles of additive manufacturing and protocols for testing output product. ISO Technical Committee 261 is responsible for this and all other ISO standards addressing additive manufacturing.³



CONTACT US TODAY



TÜV SÜD Global Risk Consultants (GRC) can assist you with the identifying, quantifying, and developing mitigation strategies by development of continuity and resiliency plans. We have decades of experience in countless industries to help you analyze what the risks will be in complex segments of manufacturing or other niche industries. Our engineers are the best-of-the-best in property loss control.

Global Risk Consultants®

A thorough business continuity assessment examines several perils that can lead to business interruption – not just pandemics. They include: property damage, supply chain, pandemic, public relations, political strife, globalization, cyber/ransomware, and more.

¹Statista | ²NFPA | ³ISO