MANUFACTURING SKILL STANDARDS COUNCIL

Definition of Nanomanufacturing

Nanomanufacturing refers to manufacturing processes of objects or material with dimensions between one and one hundred nanometers.[1] These processes result in extremely small devices, structures, features, and systems that have applications in manufacturing, with emphasis on low cost and reliability.

Nanomanufacturing is both the production of nano-scaled materials, which can be powders or fluids, and the manufacturing of parts "bottom up" from nano-scaled materials or "top down" in smallest steps for high precision, used in several technologies such as laser ablation, etching and others. Nanomanufacturing enables the creation of new materials and products that have applications such as material removal processes, device assembly, medical devices, electrostatic coating and fibers, and lithography.

Source: Glossary of Drexler's Nanosystems
National Science Foundation Workshop on Nanomanufacturing
Monica Hanus, "Nanotechnologies in Construction Industry," *Progress in Materials Science*

[1] A nanometer is very small: one billionth of a meter. A meter is about 39 inches long.