



Ely Sachs, Ph.D.
Co-Founder

Emanuel “Ely” Sachs, a pioneer of 3D printing and the inventor of binder jet printing, is a co-founder of Desktop Metal, (NYSE: DM), a leader in mass production and turnkey additive manufacturing solutions. Prof. Sachs is also a professor of mechanical engineering at MIT.

Founded in 2015 by leaders in advanced manufacturing, materials science, and robotics, Desktop Metal is addressing the unmet challenges of speed, cost, and quality to make metal 3D printing an essential tool for engineers and manufacturers around the world. As a visionary and inventor of the MIT 3D printing process and binder jet printing, Prof. Sachs’ leadership has been instrumental in the development of Single Pass Jetting™, the proprietary technology utilized by Desktop Metal’s Production System.

Prof. Sachs first established the term “3D printing” in the late 1980s while inventing and developing binder jet technology at MIT. Since that time, binder jetting has proven to be one of the critical innovations in the additive manufacturing world and is taking its place as a crucial building block - a technology ideally suited to the movement toward manufacturing by 3D printing.

In addition to 3D printing, he is also known for his invention of conformal cooled molds and contributions to the manufacturing of photovoltaics, particularly for the invention of processes which make silicon wafers directly from molten silicon with no sawing required. He has co-founded several companies in this field including 1366 Technologies Inc, of Bedford, MA. He is also known for his work on process control of microelectronic manufacturing. He has been recognized for pioneering new approaches to teaching undergraduate education, focusing on active, hands-on participation by students in the discovery of knowledge. Sachs’ numerous honors and awards include membership in the National Academy of Engineering, the Ruth and Joel Spira Award for Distinguished Teaching in 1995; the Institute of Corrosion’s T.P. Hoar Award in 2001; the R&D 100 Award in 2004; and the TMS Champion H. Mathewson Award in 2006. In 2018, he was inducted into TCT Group’s Hall of Fame, which recognizes individuals who have made a significant impact in either inventing or developing 3D printing technologies.

Prof. Sachs, who earned his SM, MS and PhD in Mechanical Engineering at MIT, became a member of the MIT faculty in 1986, where he continues to educate the next generation of engineers through his position as a professor of mechanical engineering. He has authored more than 110 technical papers and holds more than 55 patents.