FROM DESIGN TO DELIVERY:
Mill-Max Pogo Pins

Pogo Pins are Compact, Spring-Loaded Connectors Used Across Industries Due to Their Durability, Ease of Installation, and Performance in Demanding Environments.

These pins are found in devices ranging from mobile chargers and test equipment to automotive electronics. At Mill-Max, we create each pogo pin according to exacting standards, using high-quality materials, robust designs, and strictly controlled engineering and manufacturing processes to ensure long-term performance. Below we take a closer look at the design and production of the pogo pins.

Designing for Function and Fit

When designers approach Mill-Max with a new project, they typically understand the size and general connector type required. Mill-Max engineers refine the pin or connector design, considering manufacturing, material performance, and mechanical constraints.

Balancing Spring Force and Performance

Spring force is a key factor in pogo pin performance. It maintains electrical contact under shock and vibration, reduces contact resistance while still providing a reliable connection. The optimal spring force depends on contact materials, the number of pins, pin geometry, and electrical performance. Too little force risks poor connectivity, while too much may cause wear. Mill-Max helps customers define this balance to meet performance and durability goals.

Engineered for Longevity

Durability starts with smart material and design choices. Larger pins with thicker walls are more resistant to bending or misalignment. Springs made of beryllium copper or stainless-steel offer durability up to a million cycles at mid-stroke compression. Gold plating across all components protects against corrosion and wear, extending component lifespan. Thicker plating supports long-term performance in demanding applications.

Fitting Within Tight Spaces

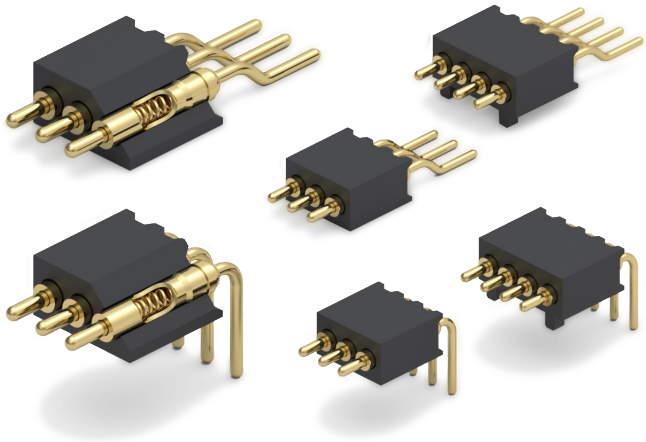
Application size requirements often dictate pogo pin design. Customers specify the footprint needed, and Mill-Max adapts accordingly. Even within strict space constraints, our engineering team finds solutions that maintain strength and performance.

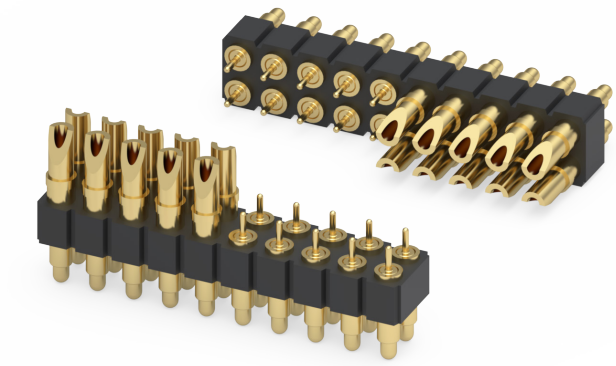
Inside the Manufacturing Process

Once the design is finalized, each part of the pogo pin is precisely machined, cleaned, inspected, plated, and assembled. After assembly, each pin undergoes screening and testing to ensure it meets strict tolerances, spring force requirements, and functional performance. Only pins that pass every test are shipped. Mill-Max's vertically integrated manufacturing ensures control and consistency at every stage, setting its products apart.

Mill-Max: The Connection Experts

Pogo pins offer the flexibility, reliability, and compact design required in modern electronics. Mill-Max delivers both custom and off-the-shelf solutions, backed by expert engineering and full in-house manufacturing.





With over 45 years of experience in meeting the industry's most rigorous requirements for quality, economy, and rapid turnaround, Mill-Max is your source for precision-machined interconnect solutions.

Contact our Engineers today
Email: techsupport@mill-max.com
Call: (516) 922-6000

www.mill-max.com

Read the Full Engineering Notebook

MILL-MAX MFG. CORP.
190 PINE HOLLOW ROAD • OYSTER BAY, NY 11771
PHONE: (516) 922-6000