

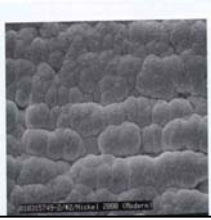
## **SIFCO Can Selectively Plate Semiconductor Manufacturing Components!**

SIFCO Applied Surface Concepts has been involved with the selective plating of semiconductor components such as perf plates, shower heads, buckets, and chambers for many years. This experience, combined with having the selective plating industry's most complete R&D department, puts SIFCO in a unique position to be of great value to manufacturers in this arena.

SIFCO's involvement in plating these components came to the forefront in the early 1990's, in joint development with Alcoa Aluminum at their R&D facilities in Pittsburgh. Early work involved development of the selective anodizing procedures and techniques for the deposition of nickel deposits onto the various aluminum alloys being investigated for use in semiconductor manufacturing equipment.



SIFCO Applied Surface Concepts has been the major supplier of the cleaning, preparatory, and plating solutions, as well as the procedures, used in plating components worldwide. SIFCO's plating solutions have been used on most of the major equipment manufacturer's components. This history means you can feel secure in utilizing SIFCO's products.



SEM (x 1000) of SIFCO's  
Acid Nickel deposit as  
plated on 6061 Aluminum

SIFCO has been deeply involved in developing the specifications pertinent to the industry since the early days. Mil-Std-865 was one of the original specifications developed for selective plating, and is called out on many component drawings. Many companies manufacturing components for semiconductor manufacturing call for this specification. Mil-Std-865 has since been discontinued, and has been superseded by SAE's AMS2451, again developed with SIFCO's in-depth involvement. SIFCO also plates to many other industry and company specifications. This intimate

knowledge of industry specifications translates to further assurance that SIFCO knows what they are doing.

In addition to being instrumental in the development of industry specifications, SIFCO has also taken the procedures originally developed for these components into new areas. In particular, these procedures for plating nickel on aluminum were the basis for the interconnection plating SIFCO did on the International Space Station. SIFCO personnel plated 100's of critical connection points on a number of the modules. Knowing that SIFCO can meet NASA's critical requirements means your technical requirements are probably within the realm of SIFCO's capabilities.



SIFCO offers plating service for your components, either on-site at your location or at one of our shop locations. Quick turn-around and excellent customer service are hallmarks of our shops' capabilities.

We would like to talk to you about your plating or coating needs, and how the SIFCO Process of selective plating might benefit you. Please feel free to contact us at 216-524-0099, or through our website at [www.sifcoasc.com](http://www.sifcoasc.com).

