

# METAL FORMING COMPANY

*...provides precision parts*

When Science and Engineering Services, Inc. (SES) of Huntsville, AL, procured a contract with the U.S. Government to perform a redesign and retrofit project on a power supply application for the military, they turned to California Fine Wire's Precision Metal Components division, a Grover Beach, CA supplier of quality drawn and hand-fabricated precision enclosures, prototypes, and specialty components for the microwave, electronics, military, automobile, and communications industries.

SES' project required redesigning and retrofitting the housing for a special power supply. Typical of many projects that involve military confidentiality, the nature of this one cannot be fully disclosed but SES required precision metal forms that adhered to specifications dictated by high military standards.

It's California supplier was commissioned to custom-engineer and design tooling to manufacture the housings in a one-stage draw because of special design considerations, including a unique shape, cutaway areas, notches, dimples and multiple holes. The units were constructed of a magnetic shielding material and had a stepped enclosure to accommodate special electronics. After being drawn and welded, the units were annealed in a hydrogen atmosphere to return the metal to its original properties.

Last year, CFW/Precision Metal Components manufactured 1.5 million parts made of

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cold rolled steel, stainless steel, brass, aluminum, copper and nickel. They expect to exceed that total by another quarter million units this year by building high quality, precision-crafted metal components for the Naval D-5 Trident and Stinger missile projects. Other enclosures are custom designed for satellites, microwaves, oscillators, quartz filters, and load cells in addition to more commercial products.

CFW/Precision Metal Components began when California Fine Wire (CFW) purchased a machine shop in 1973 to repair and maintain its wire drawing equipment and conduct research and development to aid CFW's product lines. The shop consisted of mills, lathes, grinders, notchers, tools & dies, and

other metal working equipment. After a few years of learning the metal deep drawing business, CFW recognized need for a supplier of drawn enclosures that would be able to hold exact tolerances and do prototype and development work with high quality and expedient delivery. In 1976, CFW/Research and Development became its own division and was incorporated. By 1987, the division had become a quality supplier of deep drawn precision enclosures and in that year, the name was changed to CFW/Precision Metal Components.

CFW/PMC built a name for themselves by conforming to MIL-I-45208-A specifications, a standard established by the military to maintain high performance and quality for all their components. Its Specialized Fabrication Department is capable of developing items to their customer's unique specifications, and aiding in research and development of new products. Hand fabrication allows CFW/PMC to provide prototypes and small quantity runs of 1 or 1000 units for situations where tool and die production would be prohibitively expensive. Enclosures are hand cut and folded, then seams are hand or furnace brazed sealed. And this can be done to very close tolerance on large and small sized units.

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