

KAMAN



CORPORATION



he diverse activities of Kaman Corporation have a common denominator of high technology. Pictured here and following are some of the areas in which we have interest and capability. From Automation to Xrays, from high flying helicopters to currents of the ocean, where there is Kaman . . . there is technology.



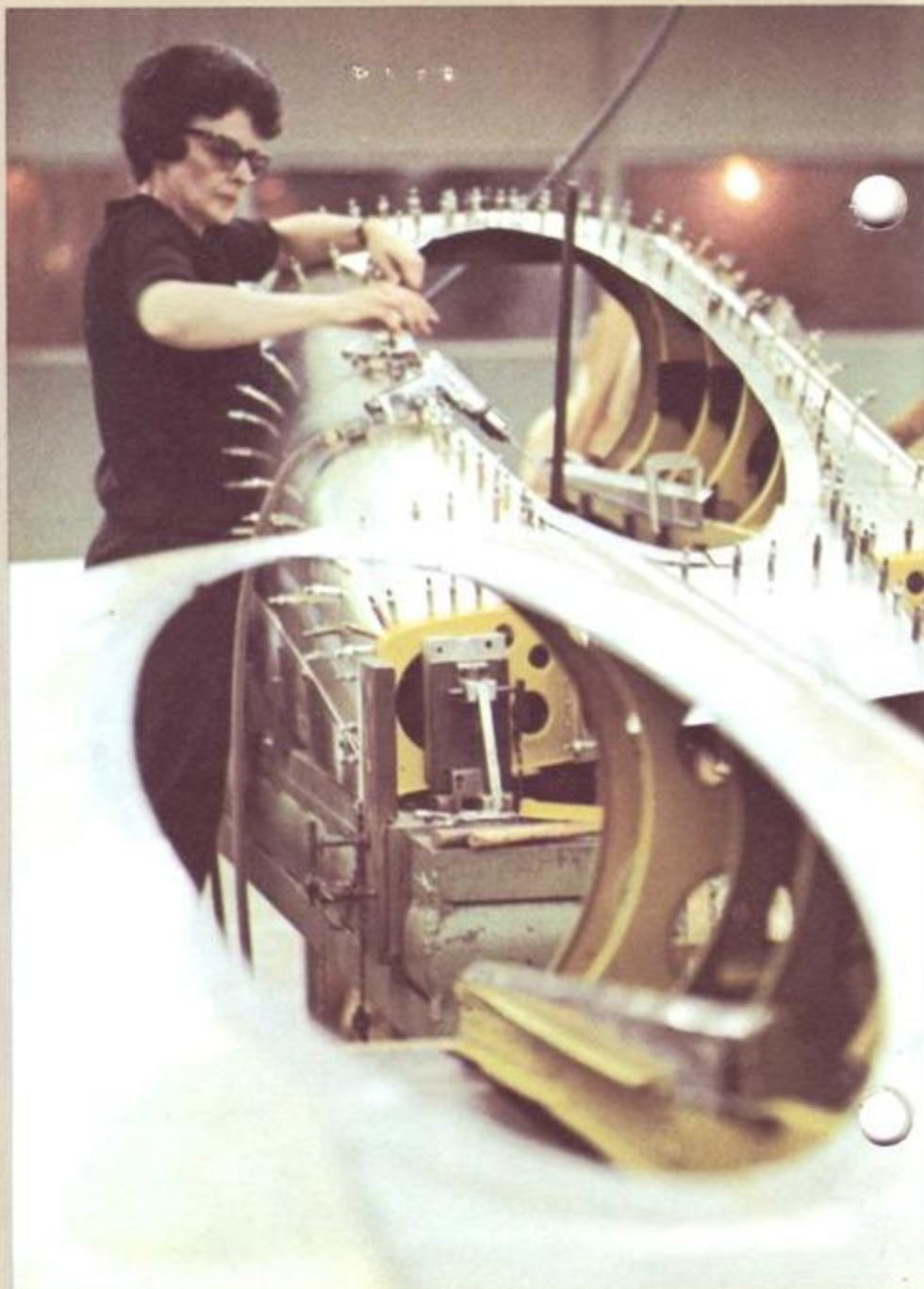


aman Corporation experience and capability in systems management—integration of simple and complex elements into a total functioning system—qualify us for a wide variety of programs both as a prime contractor and producer of components for other aerospace companies.



AEROSPACE

This huge General Electric jet engine thrust reverser must be held to $\pm 30/1000$ ths of an inch over its entire curvature.



Airframe production includes our own helicopter programs, complete wing and tail assemblies and many smaller components for other aircraft programs. Parts we make for space vehicles, military and commercial jets vary in size from small sections of highly classified space probes to these huge C-5 wing flaps and spoilers.



Automation Machinery's adjustable indexing conveyor is now being used by many of the larger companies for candy packaging. They are also being developed for assembly operations on locks, radio-TV speakers and armaments.



ur Bradley International complex is now in process of retrofitting Kaman Seasprite helicopters to twin-engine configuration under Navy contracts. This increases performance and reliability.



KAcarb bearings—self-lubricating, corrosion-resistant and patented—are proving themselves in extremes of adverse combat environment. They will have application in many new fields where the environment is too tough or lubrication is not possible.



Meticulous quality and craftsmanship is imperative in components such as tail rotors which must withstand more than 600,000,000 cycles of stress over their lifetime.

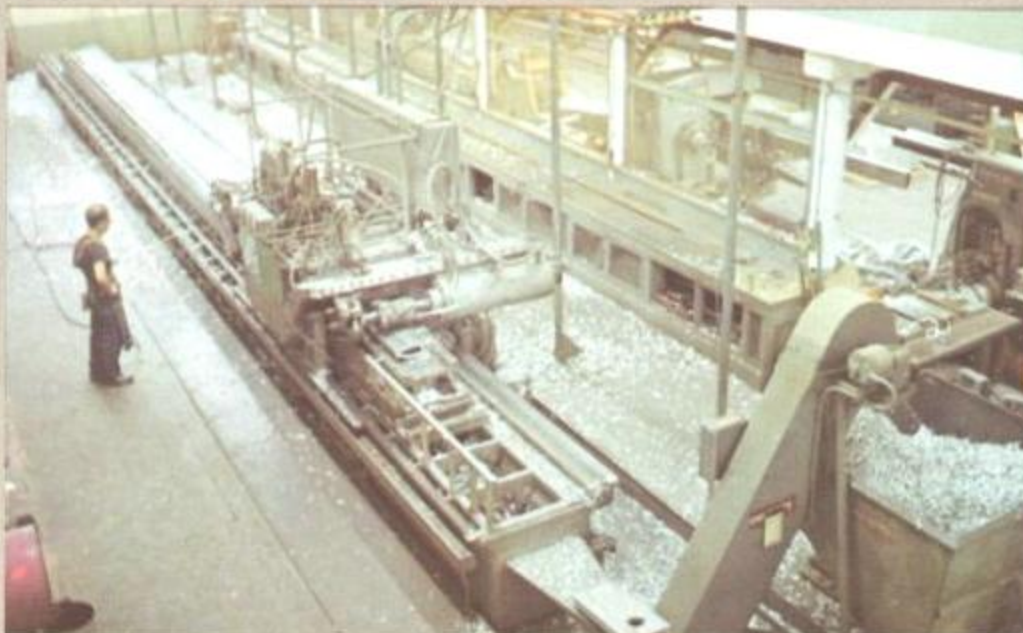


Our aerospace reputation has been built on outstanding engineering developments, precision workmanship and on-time deliveries.

At our Moosup, Connecticut, factory these huge presses and our chemical milling facility turn out sophisticated stampings and intricate parts that are demanded by today's aerospace technology.



The Kaman UH-2 rotor blade is precision machined inside and out to 5/1000ths of an inch. This 50 long spar mill shapes the outside contour of the leading edge spar.





bonded structure predominates in today's space vehicles and high performance aircraft. Space age materials—new alloys, honeycomb and advanced chemical adhesives—are bonded under heat and pressure of our autoclaves to make lighter, stronger components. Kaman's Bloomfield bonding facility—dry fit area, clean room, and autoclaves—are among the largest on the East Coast.



Autoclaves bond components with heat to 600°F and pressure to 300 pounds per square inch.



Metal-to-metal bonding and honeycomb construction are replacing traditional airframe manufacturing methods.



vation Instruments has created a top quality line of acoustic and electric guitars and amplifiers. With the product lines and sales expanding steadily, the Ovation sound is getting 'round.



RECREATION



It seems that just about everybody who is anybody uses Ovation.

Our musical instrument distributors in Los Angeles and San Francisco have increased their lines and expanded their territories. We now service 11 western and midwestern states including Hawaii and Alaska.



Kaman aerospace technology went into the design and fabrication of our line of acoustic roundbacks, electric guitars and solid state electronic equipment.

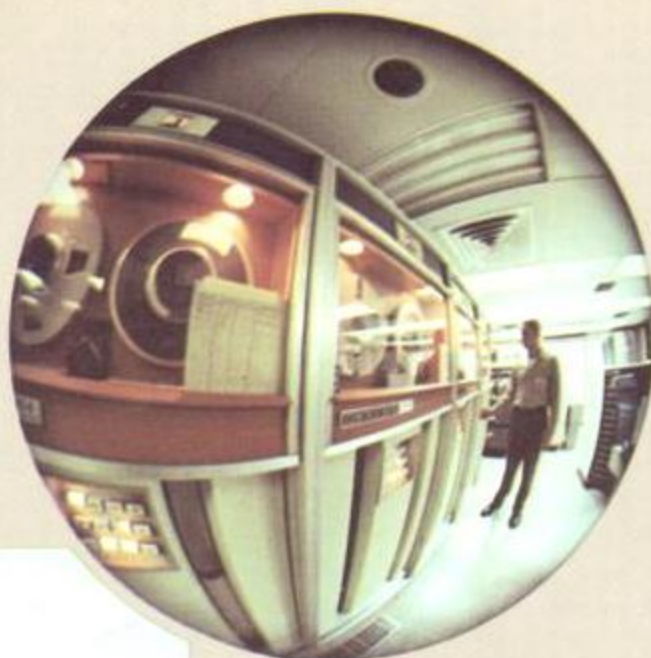


Restoration, repair, rejuvenation are also part of the services offered by the Coast Wholesale companies.



I'm glad Ovation was bold enough to question traditional methods and find a better way." . . . so says Glen Campbell, who endorses and uses our guitars exclusively. The Ovation Glen Campbell Model 12-string and 6-string guitars are without peer.





The computer installation at Nuclear Division is among the most advanced scientific computers in the Rocky Mountain States. Our Control Data Corporation 6400 computer installation is linked to time-sharing customers as far away from Kaman Science's Colorado Springs headquarters as Los Angeles, Tucson and Austin.

Nuclear power and weapons vulnerability studies are a significant part of the Colorado Springs activity. These studies are generally highly classified software, but sometimes they involve handling radioactive materials.



his equipment can develop 2 million volts to discharge a burst of X-rays, simulating radiation effects of an atomic weapon.





aman scientists are deeply involved in the varying fields of metrology, mathematics, complex measuring devices and nuclear power generation.



Advanced technology can simulate many of the characteristics of an atomic detonation so that lab tests can be used to predict some of the effects of nuclear weapons. Our capacitor discharge banks can store and release bursts of pulsed energy up to 55 kilojoules.



cean engineering, mooring dynamics, wave studies and tsunamis are specialties of our Science Engineering Associates. Typical program is study of harbor surge at Long Beach, California.



This biomedical project created instruments sensitive enough to measure fluid balance in kidney transplant patients.





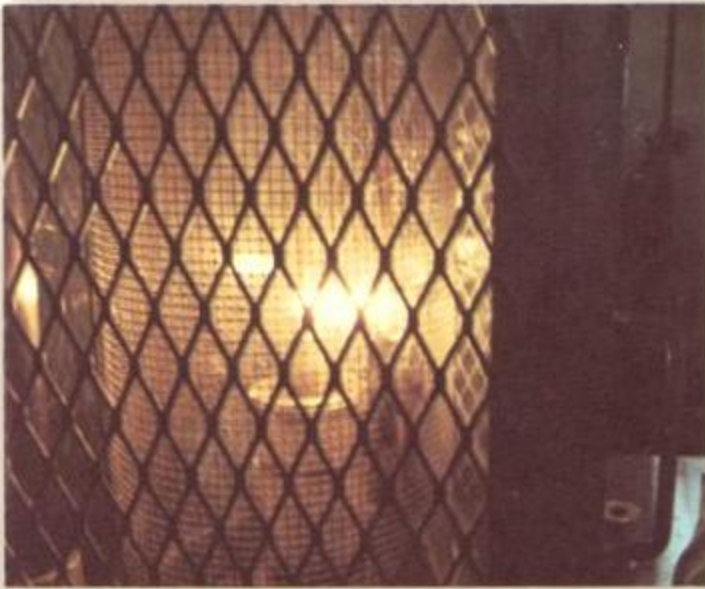
aman Sciences' transducers are ultrasensitive instruments that record pressure changes, or minute displacements. Some operate at temperatures as low as -450°F and others as high as $+1000^{\circ}\text{F}$.



ur new ceramic material, K-ramic, is unique. It is machinable and subsequently can be fired to near-diamond hardness without distortion. Grinding wheels, bearings and armor protection are among the early beneficiaries of this fascinating material.



K-ramic is fired at temperatures less than half the 3000° typical for ceramics, greatly simplifying production and keeping price low.



Nuclear technology is finding its way into industry. Kaman Sciences' neutron sources are used in activation analysis systems to measure protein content of grain, oxygen in steel, impurities in beryllium, and to make highly accurate determination of trace elements in the composition of various materials.



By far the largest part of the business of Kaman Sciences is represented by classified study programs. One in every five of the scientific staff are PhD.'s. This preponderance of talent makes us one of the foremost scientific companies in the country.



Aircraft sales and services are expanding rapidly. We are now franchised by both Beech and Cessna.



AirKaman now operates from bases in Hartford, Omaha and Jacksonville, and is well on its way to establishing our general aviation service on a national scale. As fixed base operators we now sell over 2,000,000 gallons of fuel each month to aircraft at Bradley International alone.

Airframe, avionic and engine repair, maintenance and overhaul are an important part of our business.



AVIATION



Keeping pace with burgeoning aircraft sales is a healthy rise in revenues from our charter and leasing contracts, flight instruction programs and equipment sales.



Business Groups, Divisions and Subsidiaries

AEROSPACE—*Helicopters, airframe components, rescue devices, automation machines, bearings, vibration isolation, research and development.*

KAMAN AIRCRAFT DIVISION
AUTOMATION MACHINERY DIVISION
KACARB PRODUCTS DIVISION

MUSIC & RECREATION—*Acoustic and electric guitars, amplifiers and accessories, complete line of musical instruments, and repair.*

OVATION INSTRUMENTS DIVISION
COAST WHOLESALE MUSIC COMPANY
OF LOS ANGELES
COAST WHOLESALE MUSIC COMPANY
OF SAN FRANCISCO

SCIENCE AND TECHNOLOGY—*Neutron generators, pressure transducers, weapons studies, nuclear research, advanced aerodynamics, oceanography, computer time-sharing and systems analysis.*

KAMAN SCIENCES CORPORATION
KAMAN NUCLEAR DIVISION
KAMAN SYSTEMS CENTER DIVISION
SCIENCE ENGINEERING ASSOCIATES DIVISION
KAMAN AVI-DYNE DIVISION

GENERAL AVIATION—*Aircraft sales and service, fuel, repair, charter service, flight training, and aeronautical government surveys.*

AIRKAMAN, INCORPORATED
AIRKAMAN OF OMAHA, INC.
AIRKAMAN OF JACKSONVILLE, INC.



Plants and Offices

CALIFORNIA
COLORADO
CONNECTICUT
FLORIDA
MARYLAND
MASSACHUSETTS
NEBRASKA
WASHINGTON, D.C.

Corporate Offices: _____

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This then represents a limited view of Kaman Corporation as it is today. Our plans for tomorrow are unfettered and imaginative. If you should want additional information, please take the opportunity to contact our Public Relations Department.



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