

Product showcase

Walk-in oven

The No. 990 electrically heated, 500°F walk-in batch oven from **Grieve** is used for curing composite materials in vacuum bags. The 60 x 60 x 72-in oven features Incoloy-sheathed 40-kW tubular heating elements. A 3300 ft³/min, 2-hp recirculating blower provides a combination horizontal/vertical airflow to the workload. The oven features 4-in insulated walls, aluminized steel interior and exterior, and a four-position vacuum manifold, with gauge and hand valve for each position. Controls and safety equipment include a digital programming temperature controller, manual reset excess temperature controller with separate contactors, recirculating blower airflow safety switch, and silicon controlled rectifier power controller.



Impact tester

Instron's Dynatup 9250 impact testing instrument measures energy absorption and related impact properties of polymers, metals, composites, and resulting final components. The drop tower features complete computer control with impact velocities of up to 20 m/s for rigorous testing in the fields of R&D and quality control. It captures, plots, and analyzes the entire impact event, enabling the user to determine characteristics such as incipient damage, ductile-to-brittle transition point, maximum load, and total energy absorbed. The device is designed to operate in extreme temperatures and harsh environments.



Microwave tuner

Rockwell Collins' CS-6040 microwave tuner brings next-generation capabilities to signals intelligence (SIGINT) and electronic warfare (EW) applications. The tuner is part of the family of EW-SIGINT products designed to provide accurate coverage across the broadest frequency range. The surveillance systems detect, locate, and analyze signals of interest, and intercept and monitor enemy communications. The device's phase noise, tuning speed, dynamic range, and group delay performance are suited for the search and collection of communication and radar signals. The tuner covers 0.1 to 20 GHz with an optional millimeter wave extension. Embedded display capabilities enhance situational awareness by offering full-spectrum, channelized, and pan displays.

Ball and roller screw assemblies

SKF ball screws and roller screws in a variety of cost-effective types and designs are built for precise positioning in linear-actuation applications. The line includes rolled ball screw and

ground ball screw assemblies and planetary and recirculating roller screws. Rolled ball screws include miniature, universal, and precision versions, and long lead ball screws. Ground ball screws are offered in preloaded and non-preloaded designs. TCM precision types feature a robust and durable internal return design. All assemblies can be equipped with accessories for screw shafts and nuts and can be supplied with the support-bearing package preassembled and ready for use. Planetary and recirculating roller screws suit applications requiring accuracy, rapid acceleration, fine leads, and high load capacities. They can sustain static loads up to 1000 ton and dynamic loads up to 200 ton.



Efficient accelerometer

Measurement Specialties'

Model 4610 accelerometer with onboard signal conditioning is designed for very low frequency measurements. Offering integral temperature compensation with a hermetically sealed sensor assembly, the accelerometer ranges from ± 2 to ± 500 g with a bandwidth from dc to 1500 Hz. The Model 4630 offers the same high-performance sensing technology in a triaxial package with independent circuits and low transverse sensitivity. Applications include low-frequency uses such as flight testing, vibration/shock monitoring, motion analysis, transportation, road vehicle testing, machine control, and modal analysis. The units use second-generation microelectromechanical system technology that ensures high long-term stability and wide dynamic range. They operate from an 8 to 32 V dc power supply with minimal power consumption and provide an optional 2.5 V reference voltage.



E-Drive starter

The E-Drive starter from **Kelly Aerospace** provides maintenance-free service to an engine's time between overhaul and beyond. The 9.5-lb drive is immune to kick-back damage, is engineered specifically for aviation, and has no mechanical Bendix. The pinion support is non-cantilevered. The starter has the same envelope as existing certified starters, provides a minimum of 3000 maintenance-free starts, and features a performance high-torque motor. It recently received **FAA** parts manufacturer approval.



Product showcase

Single-board computer

Curtiss-Wright's SVME/DMV-183 rugged PowerPC single-board computer has a board support package that supports **Green Hills Software's** Integrity real-time operating system. It provides the necessary initialization code, driver support, and helper libraries—allowing software developers to take full advantage of the operating system and MULTI development tools. The system features single or dual **Freescale** MPC7447A/7448 PowerPC processors with AltiVec technology and can support up to 2 GB of double-data-rate SDRAM. With two 64-bit PMC sites—one supporting 100 MHz PCI-X—and I/O capability such as Gigabit Ethernet, up to six serial ports, up to two 1553 channels, SCSI, Serial ATA, and two USB 2.0 ports, it satisfies requirements for applications such as the data- and digital-processing needs of tactical aircraft, armored vehicles, and harsh-environment naval system single-board computers.



Crystal oscillator

Bliley Technologies' low-noise, 100 MHz ovenized crystal oscillator features low-profile packaging (0.53 in maximum). The NV45G1480 device is suited for phase-locked microwave signal sources including dielectric resonator oscillators, test equipment, microwave communication systems, and military and Doppler radar.

The device contains carefully matched crystals and oscillators achieving optimal performance for noise, packaging nearly 50% smaller than previous generations, low power consumption, and tight stability. Specifications include 100 MHz operating frequency, typical phase noise -130 dBc at 100 Hz offset, stabilities as tight as ± 50 ppb over temperature, high power output of 15 dBm, lower power consumption (1 W typical at 25°C), and long-term aging at 20 years.



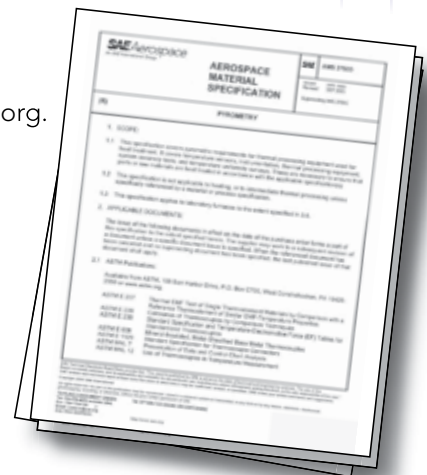
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