

### Electric inert-atmosphere furnace

No. 989 from **Grieve** is an electrically heated, 2000°F (1100°C) inert-atmosphere furnace that is used to process fabricated parts at the customer's facility. Workspace dimensions measure 30 x 48 x 30 in (762 x 1219 x 762 mm). The unit is heated via 57 kW installed in



nickel-chrome wire coils supported by vacuum-formed ceramic fiber, while a roof-mounted, heat-resisting alloy circulating fan powered by a 2-hp (1.5-kW) motor with V-belt drive maintains the inert atmosphere for the workload. The furnace features an alloy roller rail supported by firebrick piers and the alloy loading fixture with five 200-lb (91-kg) capacity alloy shelves, with an external support roller rack to hold the loading fixture directly in front of the furnace's workspace for easy loading/unloading.

### Electric linear actuators

**Danaher Motion's** Thomson Pro Series electric linear actuators are suited for demanding operating conditions such as those found involving construction machinery. The units are smaller, more effi-



cient, and feature a wider range of control options and higher load capacity than the firm's current actuators. They feature electronic limit shutdown and overload protection functions, programmable switches, and a choice of digital or analog feedback options. The electric cylinders are protected against dust and moisture per IP66 and have an optional IP67 rating, in addition to being corrosion-resistant and maintenance-free. The models provide a 300-mm (12-in) stroke and input voltage of 12 or 24 V dc.

### CNC user support

An interactive support facility with Web-based conferencing technology is providing benefits for users of **EdgeCAM's** CNC programming system and the worldwide reseller network. The CNC system offers a complete solution for NC milling, turning, and mill/turn programming. The



power of affordable broadband technology is harnessed to provide enhanced support via a Web-conferencing Support Center from Webex, enabling interactive exchange between the company and its customers. If the customer's query cannot be settled quickly, an EdgeCam engineer can ask the customer's engineer to click on the "support session" option within the software help menu. This initiates a joint session, where both people can view, and effectively share control of, the user's screen. This enables issues to be identified and resolved quickly.

### Laser machining systems

The Laserdyne 790XS - P50L from



**PRIMA North America** and **Sumitomo Heavy Industries** is a six-axis system featuring the latest Laserdyne controller, the S94P. The system also has hardware and software features such as Optical Focus Control (OFC) and BreakThrough Detection. OFC complements the 790 BeamDirector's Automatic Focus Control, and BreakThrough Detection has been shown to produce parts not only with a shorter cycle time, but also with a better airflow consistency. **Mitsubishi Heavy Industries** will use two of the systems for laser processing of turbine engine components.

### Precision optics grinder

**Accura Technics' MicroTol** is a versatile CNC machine tool adaptable to turning as well as grinding. The lead-off machine is tooled for grinding spheres and aspheres in

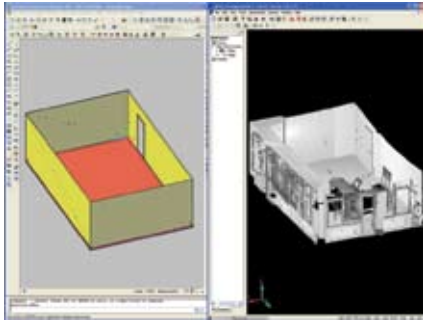


BK7 optical glass. A cross-axis approach is used with the axis of the work spindle horizontal, and the axis of the wheel spindle vertical. The workpiece is routed around the periphery of the grinding wheel by X and Z axis interpolation to produce either a spherical or an aspherical shape. The tool can generate good geometry and surface finish while minimizing

the grinding time prior to polishing operations. The large, configurable work area is totally enclosed for coolant containment. The machine can be fully automated with robot loader and conveyors.

### Laser scanner

FARO Scene v4.1 offers faster workflow and improved quality for FARO Technologies' Laser Scanner LS product. FARO Scene software is used for viewing, administrating, calibrating, filtering, and managing large, 3-D point clouds collected with the Laser Scanner LS. Version 4.1 increases productivity by reducing



the amount of on-site scanning time, and enables users to process and present results more effectively. Enhancements include a Wi-Fi/WLAN scanner connection, mobile phone, laptop, or other Internet Explorer-equipped devices; advanced noise reduction; more than 86% faster color capture speed; fully automatic color scan white balancing; compatibility with Nikon D70s or Nikon D200 cameras for color scanning; automatic filter action; Draw-to-CAD feature; and ability to import CAD files not only in VRML2 but also VRML1.

### Marking lasers

Columbia Marking Tools' 10- and 20-W laser marking systems use pulsed laser technology that develops the same 1064-mm wavelength as Nd: YAG and Nd: YVO4 but are compact in design and air-cooled. The airflow is segregated from any electronic components so no filters require changing and component life is



maximized. Because the pulsed fiber laser uses a doped fiber technology, sensitive optical components are eliminated, making the lasers suitable for industrial integration. The pulsed laser offers 90% usable power range compared to approximately 30% usable power range associated with YAG and YVO4 systems. These systems use E-Z Mark software that enables the laser system to be tailored to the customer's requirements with specific application for UID/2D marks.

### Wire and cable marking

The Laselec Ulys and MRO 200 wire and cable marking machines feature permanent and nonaggressive marking as well as compliance with the quality require-



ments associated with cable handling. Suitable for use in the automotive, railway, and aerospace industries, the user-friendly machines include new features. Laselec has established the innovation release program to support its customers and avoid obsolescence of its marking equipment after five years. Users of already installed equipment can benefit from all the upgrades made to the new series by Laselec's research and development teams. The MRO 200 range of machines complements the Ulys range, which is designed for medium to large production runs.

### Feasibility consulting

Applied Manufacturing Technology offers machine vision feasibility consulting services for robot guidance and quality inspection. The service allows manufacturers to identify potential opportunities to use machine vision. It can determine if an application is suitable for machine vision, appropriate for the facility, and technically feasible. Uses for machine vision include measuring tolerances, detecting part presence, determining part orientation and position, identifying bar codes or other readable characters, guiding robots, and product trace-



ability. Upon review of the customer's parts and application, the resulting report will determine whether machine vision is applicable, and if so the report can include a list of components needed to engineer the system.

### Actuator control units

Danaher Motion's control units are harmonized for its range of industrial electric linear actuators. The DCG units come



preconfigured and can be set to work immediately following connection to the power supply, a manual control, and the electric linear actuator. One model is designed for individual electric linear actuators and one for two electric linear actuators running in synchronism. The individual control unit supports a maximum current of 24 V dc at 13 A and a switching capacity of 10%, whereas the dual control unit operates at a maximum current of two times 24 V dc at 8 A and an identical switching capacity of 10%.