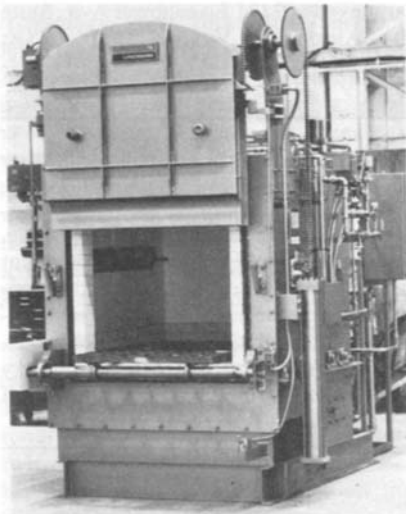


Tocco, Inc., Boaz, Alabama: *An induction scan hardening system, TOCCOrol® 310/320 for processing large workpieces and for long production runs* common to mid-volume plants/commercial heat treat operations; up to 35-in.-long parts weighing 100 lb.; production doubled with addition of second spindle; even more productivity gained through robotic/other load/unload automation; harden, anneal, temper, braze on vertical/horizontal plane; 95% efficiency at full load with 93% input power factor. **Circle (49)**

Elnik Systems, Fairfield, New Jersey: *New, compact, state-of-the-art high temperature vacuum furnace;* leading-edge software program for automatic/manual operation; all operating parameters/process variables; networking, host communication, report generation, numerous data-logging capability. **Circle (50)**

Houghton International Inc., Valley Forge, Pennsylvania: Six-page brochure describing *Houghto-Quench® and marTemp® quenching oils;* properties, applications, operational requirements. **Circle (51)**

Lindberg/Blue M, A General Signal Company, Watertown, Wisconsin: *A new generation 1500 °C laboratory box furnace, the Model 51433;* high-temperature research applications; energy efficient; ideal for ceramic sintering, metallurgi-



Lindberg/Blue M

cal/alloy analysis, metal melting/brazing/hardening, heat treating small components in limited quantities; ceramic fiber insulation, silicon carbide heating elements; rapid heat-up/cool-down rates; four-segment programmable controller supplied. **Circle (52)**

.....Introduction of a *new furnace system designed specifically to burn off polymers and other organic components from metallic tooling;* reduces residual polymer to easily disposed ash; exhaust afterburner eliminates toxic gases; maximum operating temperature of 1250 °F/afterburner temperature 2000 °F; sidewall-mounted rod overbend elements for accurate single-zone control; motorized alloy rolls with sprocket drive. **Circle (53)**

.....A *new generation of 1100 °C laboratory crucible furnaces designed to meet vertical heat processing requirements introduced;* heating elements embedded in *Moldatherm® ceramic fiber insulation;* excellent radial uniformity/energy efficiency; well-insulated; self-tuning, single setpoint, built-in control for best parameter value during operation; configures in F/C; dual display readout of actual to set



Lindberg/Blue M

point chamber temperature; excess temperature protection. **Circle (54)**

.....The acquisition of **Revco Scientific, Inc.,** by **General Signal Corp.,** Stamford, Connecticut, has created Revco/Lindberg to enhance the profitability of the combined businesses; Revco's line of ultra-low-temperature laboratory equipment complements Lindberg's position in the laboratory equipment market.

Precision Quincy Corp., Woodstock, Illinois: *A new line of heavy-duty electrically heated laboratory ovens;* precise, uniform temperatures throughout operating range to 650 °F; available in single/double heating chamber models, many sizes; structurally reinforced welded steel construction with stainless steel interior; pressure relief roof panel, positive door latch, heavy-duty recirculation fan, safety interlock to shut off heat in case of blower failure. **Circle (55)**

U.S. National Institute of Standards and Technology (NIST), Gaithersburg, Maryland: *A new furnace, paired with a small-angle neutron-scattering instrument,* allows researchers to observe changes in the microstructure within ceramic materials in real time throughout the sintering process; eliminates the problems of firing ceramic powders at high temperatures and relying on trial and error to produce materials with the right properties. **Circle (56)**

T-M Vacuum Products, Inc., Cinnaminson, New Jersey: *A newly developed high-temperature, quick-cooling, tempering/annealing vacuum furnace system* is capable of 1150 °F under vacuum, or with inert gas backfill pressures; designed to operate efficiently between temperatures of standard ovens and high-temperature furnaces; on completion of processing, system is rapidly cooled by an internal gas-to-water exchange system. **Circle (57)**

Inductoheat, Madison Heights, Michigan: *A new induction heat treating workcell to process steering racks;* designed to replace large, off-line carburizing and tempering furnaces; includes Uniscan® II for induction scan hardening journal areas, conduction hardener for surface hardening the toothed sections, Unilift for

static tempering the entire steering rack; accurate positioning, minimal rejects; total cycle time, including loading/unloading approximately 50 seconds. Circle (58)

Moco Thermal Industries, Inc., Romulus, Michigan: An *exclusive brazing furnace uses both radiation/convection heating, reducing heating time by 50%*; uses less energy; high throughput with either batch or conveyor processing; natural gas heating for lower energy cost/less heat loss; minimizes defects/ produces high-quality parts with minimal defects; fills demand for tighter quality/higher productivity standards; easy-to-assemble modules. Circle (59)

L & L Special Furnace Co., Inc., Aston, Pennsylvania: A *new 2200 ° F shuttle kiln specifically designed for ceramic manufacturing*, such as glazing and disc firing; moves back/forth between two fixed bases—load one, while other fires; open bases allow easy access all around; kiln remains warm between loads to save energy/time; four separate zones with separate PID controls integrated into single program control for excellent temperature uniformity during entire cycle.

Circle (60)

Carbolite Furnaces, Watertown, Wisconsin: Introduction of *four new chamber furnaces with wide range of labora-*

tory/general industrial heat-treatment processes; low thermal mass insulation; free-radiating coiled wire elements for good thermal efficiency, reliability, uniformity; hard-wearing tile hearth; parallel vertically opening door mechanism keeps the hot door insulation away from operator during loading/unloading; integral control module allowing choice of instrumentation. Circle (61)

The acquisition of **Electro Heat Systems (EHS)**, by **Applied Test Systems, Inc.**, Butler, Pennsylvania, will expand Applied's laboratory furnace lines.
