Optical Misfeed Detector

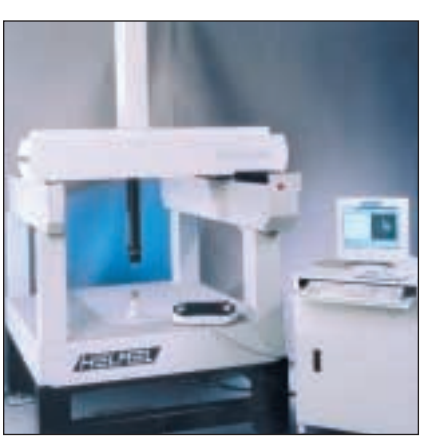
Helm Instrument Co., Maumee, OH, has introduced a misfeed instrument designed to provide the earliest possible detection of stuck buckle, roll slippage or improper pilot release timing in progressive die operations. Unlike traditional misfeed techniques, which establish detection based on a timing window, the Optimis continuously monitors the position of the strip based on encoder input. A series of optical sensors located in the die determine pilot hole or other features in the strip as it moves through the tool. The instrument features automatic programming and quick disconnects for sensors.

write no. 200

High-Speed Gantry CMM

Helmel Engineering Products, Niagara Falls, NY, has introduced the high-speed Microstar coordinate measuring machine driven by a linear motor. It combines advances in motion-control technology, such as digital communication and probe management, with the low-weight/high-stiffness, dual-beam bridge-on-gantry format.

With new Geomatic motion-con-



trol software developed for the PMAC controller, from Delta Tau, speeds can reach 40 in./sec. in longer moves. Measurements of typical geometric elements can be made at approximately 120 or more hits per minute, according to company officials.

write no. 201

Simulation Software

ESI Group, a provider of virtual prototyping and manufacturing solutions, introduces PAM-Diemaker 2000, a software application used to design and optimize stamped-parts runoffs before simulating shaping

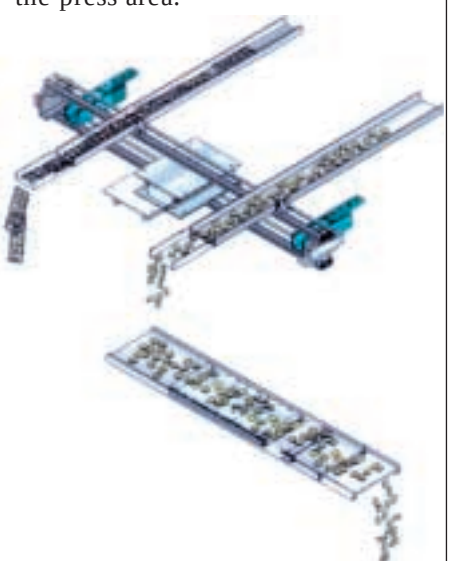
on a stamping press. Developed in partnership with industrial companies such as General Motors, the application is designed for all stamping sectors in the automotive, aeronautics and capital-goods industries.

For simple testing of various runoff design scenarios, it features advanced functions that interactively and dynamically modify the geometry of the runoff. Based upon the geometry of the meshed part, the software automatically develops the protection areas related to flanging operations and proposes different types of binder surfaces: flat, ruled and developable.

write no. 202

Part/Scrap Conveyor

The Numa-Shaker conveyor from Magnetic Products Inc. (MPI), Highland, MI, is a pneumatically driven, maintenance-free conveyor designed to transport parts and/or scrap away from die areas. The linear reciprocating motion of the motor moves the tray forward, then quickly backward, to move parts away from the press area.



The seal-less pneumatic engine provides maintenance-free operation and includes its own air filtration and regulation system. The conveyor provides a complete turnkey system, reportedly with cost savings and a longer life compared with beltless or belted conveyors. It is available in two styles: conventional air transporter front mount or MPI's exclusive under tray.

write no. 203

Facility-Management Software

Axis Computer Systems Inc., Marlborough, MA, introduces Version 3.0 of its AXIOM/mx Open ERP/MES software for metals companies. The software upgrade features enhancements such as an audit-logging function that allows users to view the history of changes to sales orders, purchase orders, work orders and invoices. It captures change history for maintenance functions such as customer, part, routing and certifications.

Upgrades have been added to the

material tracking and control module, the inventory control and process/routings modules. A new cycle schedule inquiry also has been added.

write no. 204

Compact Tool Holders

BTM Corp., Marysville, MI, has introduced a line of compact holders for both the Tog-L-Loc sheetmetal joining tools and conventional hole-piercing tools. The holders are designed to allow close-spaced mounting of the tools within a die set or progressive die. Dowels are used for location and standard ball-lock retention is employed for piercing tools.

Tog-L-Loc punch and die tools use BTM's spherical washer retention system, which also provides an easy means of extracting the tools.

Urethane strippers, which use a hard tip to produce consistent force distribution, are designed to complement the small footprint of the tool holders. The entire line offers the ability to concentrate tooling in a small area, where multiple stations may have previously been required.

write no. 205

T-Slotted Aluminum Extrusions

80/20 Inc., Columbia City, IN, offers modular T-slotted aluminum extrusions, available in both fractional and metric sizes. Customers can choose from more than 1800 components. Leveling feet, hinges, mounting hardware, tool hangers and air-pressure-manifold plates are some of the features available. T-slotted modular aluminum extrusions save assembly and engineering time, use simple hand tools and are cost-effective, claim company officials.

write no. 206

PRODUCTS

Turret Punch Press

The Fabri-Center 1500 H/30 CNC turret punch press from Strippit Inc., Akron, NY, features a 60-in. throat depth and a 2.5-meter X-axis with table size of 60 in. by 100 in. for maximum sheet use and part nesting. The heavy-duty turret press punches material in thicknesses to 0.312 in.

Strippit's 1500 H/30 turret punch press also is equipped with a 220-lb.-capacity brush table as a standard feature. The table provides smooth, quiet sheet support, enhancing the productivity of shake-aparts. The design allows the individual replacement of brushes. An optional heavy-gauge ball table increases sheet capacity to 507 lb.

write no. 207

Copper Buss Bar Fabricator

Electrical equipment manufacturers can fabricate copper buss bar with the W.A. Whitney, Rockford, IL, Model 7608 Buss Bar fabricator. The

10-ton hydraulic machine is double-headed, with punching on one side and forming on the other.

The punching side uses standard 28XX punches and dies. Keyed tool-

ing capability is provided for alignment of shaped punches and dies. The bending side bends copper buss material ¼ in. thick by 6 in. wide. A variable end-stop gauge measures bend locations and an adjustable bend stop sets the required degree of bend. The fabricator is powered by a 1½-hp hydraulic power unit which operates from a 115-v power source.

write no. 208

Noncontact Surface-Roughness Gauge

Optical Dimensions, Lake Forest, CA, has introduced the newest version of its Lasercheck line of high-speed, noncontact surface-roughness-measurement gauges. The system is packaged with a compact, portable head (3 in. by 1.4 in. by 1.75 in.) that weighs only 1 lb. It offers long life with no maintenance and no fragile stylus tips to protect

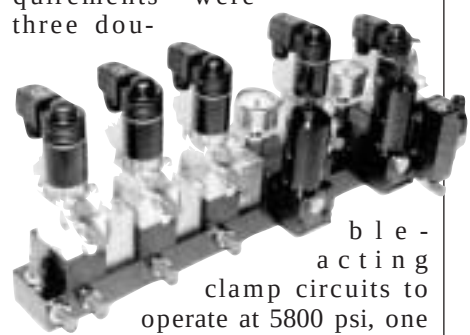
or replace, claim company officials. Lasercheck technology has performed in harsh manufacturing operations such as steel and aluminum mills as well as automotive parts plants.

write no. 209

Pump & Valve Package for Quick Die Change

Special pump and valve packages are built from standard components by Hilma Division of Carr Lane Roemheld, St. Louis, MO, to suit the needs of quick-die-change customers.

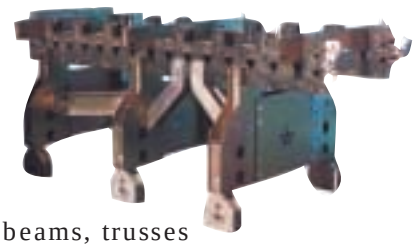
The solenoid-valve package shown was designed for a press builder in the Northeast. The requirements were three double-acting clamp circuits to operate at 5800 psi, one reduced-pressure circuit for a double-acting locator cylinder, and one reduced-pressure, single-acting die lifter circuit with circuit relief valve. All circuits are controlled by 110 VAC solenoids and monitored by pressure switches.



write no. 210

Die-Transfer Tables

American Aerostar Corp., Valencia, CA, has introduced a line of module die-transfer tables custom-configured from standard modules. Larger die sizes and weights can be accommodated by adding legs,



beams, trusses and braces. Legs can be fitted with pads or wheels of various kinds, and die-centering modules may be added. Winches, electrical or manual, can be attached to or be supported by the tables.

write no. 211

CNC Feed & Forming Machine

OMCG North America Inc., Bensenville, IL, has introduced the CNC61 CNC feed and forming machine. Version 1 handles wire to 4 mm dia., while version 2 works with wire to 6 mm dia. The model offers a 90-deg. time-to-form of 250 msec and a 180-deg. time-to-form of 400 msec.

Programming is simplified by a Windows-format interface, and the model allows on-screen production simulation. Both versions can make bends in close proximity to one another, can make closed and centered eyes and are equipped with the company's fixed front wire guide to avoid wire rotation. A simple bend mandrel allows for two different radii or generation of large radii.

write no. 212

High-Speed, Cam-Operated Press

R D Sales Inc., Telford, PA, has introduced a line of high-speed cam presses to complement its lines of mechanical and hydraulic machines. Initially, the machines will be offered in 3-ton and 5-ton models, but the company anticipates expanding the product range.

The presses have been designed to run at speeds to 1500 spm, depending upon the application. Custom cam-design capability enables control over dwell at bottom, feed windows and tonnage rating point.

write no. 213

Versa Max Robotic Workcell

Genesis Systems Group (GSG), Davenport, IA, an integrator of robotic welding and cutting systems, introduces Versa Max, a five-axis turntable welding and cutting workcell. With two external axes per station, it can manipulate a part into almost any position to achieve in-position welds.

It includes options on robot model, power source and multiple robots. A torch-cleaning device comes with the standard package. It can handle parts to 60-in. length and 30-in. dia., weighing 1200 lb. per side. The workcell handles a high volume of parts and maximizes throughput and robot use in a cost-effective solution, according to company officials. It is equipped with a safety package that includes light curtains, gate interlocks and fence barriers.

write no. 214

Slitting Lines

Chicago Slitter, Itasca, IL, introduces its Series 6000 and Series 7200 precision slitting lines that offer four line configurations. Features include dual indexing transfer slitter heads for setup on one slitter head while the other is engaged; power tooling lockup, a hydraulically powered mechanism that locks up the slitter head tooling in seconds; keyless slitting arbors for quicker setup and longer tooling life; and a roll-only tension stand design that ensures damage-free product.

write no. 215

Low-Volume Spray Assembly

Pax Products Inc., Celina, OH, introduces a low-volume spray assembly for applications requiring a minimal amount of lubricant. By using a ⅛-in. spray line and a smaller-orifice spray tip, the lubricant is atomized without the introduction of air to the nozzle.

The assembly includes 8 ft. of ⅛-in. plastic tubing, a spray nozzle assembly with choice of flat or cone-tip and a male quick-disconnect plug. It also is available in a magnetic-base configuration. The assembly is recommended for use with low-viscosity lubricants and is designed for use with all Pax prepressurized lube systems.

write no. 216

Benchtop Tool Station

The Port-A-Shop from AGM Container Controls Inc., Tucson, AZ, is a mobile benchtop tool workstation with a triangular design that allows for more than one tool to be used at the same time. With its three-legged support system, it can be used on irregular surfaces with no leveling required. Drop-in mounting points accept a variety of heavy benchtop tools—such as grinders, belt sanders, drill presses and vises—that can be changed quickly. More than one operator can use the Port-A-Shop without interference between tools, even when working on long stock.

The Port-A-Shop weighs 100 lb., has a rugged steel frame and two 3¼-sq.-ft. multipurpose work or storage surfaces. It has a capacity of 500 lb. and can support as many as six benchtop tools at one time, reducing setup time. Its steel-encased electrical power strip supplies power for

all tools using one wall outlet. The 5-in. swivel casters are extended and retracted by a hand crank.

write no. 217

Laser Cutting and Welding Machine

The Platino three-axis laser cutting and welding machine from Prima U.S. Inc., Farmington Hills, MI, offers an exclusive design featuring a compact footprint, simplified part accessibility and high-performance cutting for faster work processing. Platino's flying optics laser system allows the workpiece to remain stationary while the head moves around the material.

With its modular design and stiff cantilevered Y-axis, Platino offers

high flexibility. Work tables can be wheeled in and out of the working volume, or eliminated. The open work area makes automation of material handling operations simpler than with fixed-bed designs. Its structure, which includes the machine, laser generator and CNC, is incorporated into a single unit, eliminating transportation problems and reduces installation time. The machine does not require a foundation, so it can be relocated if necessary.

write no. 218

Flow Controller

Kaeser Compressor, Fredericksburg, VA, has introduced its flow controller, which creates storage within the receiver tank(s) by accumulating compressed air without delivering it downstream. The air pressure only increases upstream of the air receiver, while the controller delivers the needed flow downstream at a constant system pressure. This reduces the actual flow demand by virtually eliminating artificial demand and reducing leakage.

The controller allows stored compressed air to be supplemented to satisfy air demand spikes without pressure drops at the point of usage. Additional energy is saved, since standby compressors do not have to come online. The flow controller can be installed in new or existing systems.

write no. 219