

LINK SYSTEMS

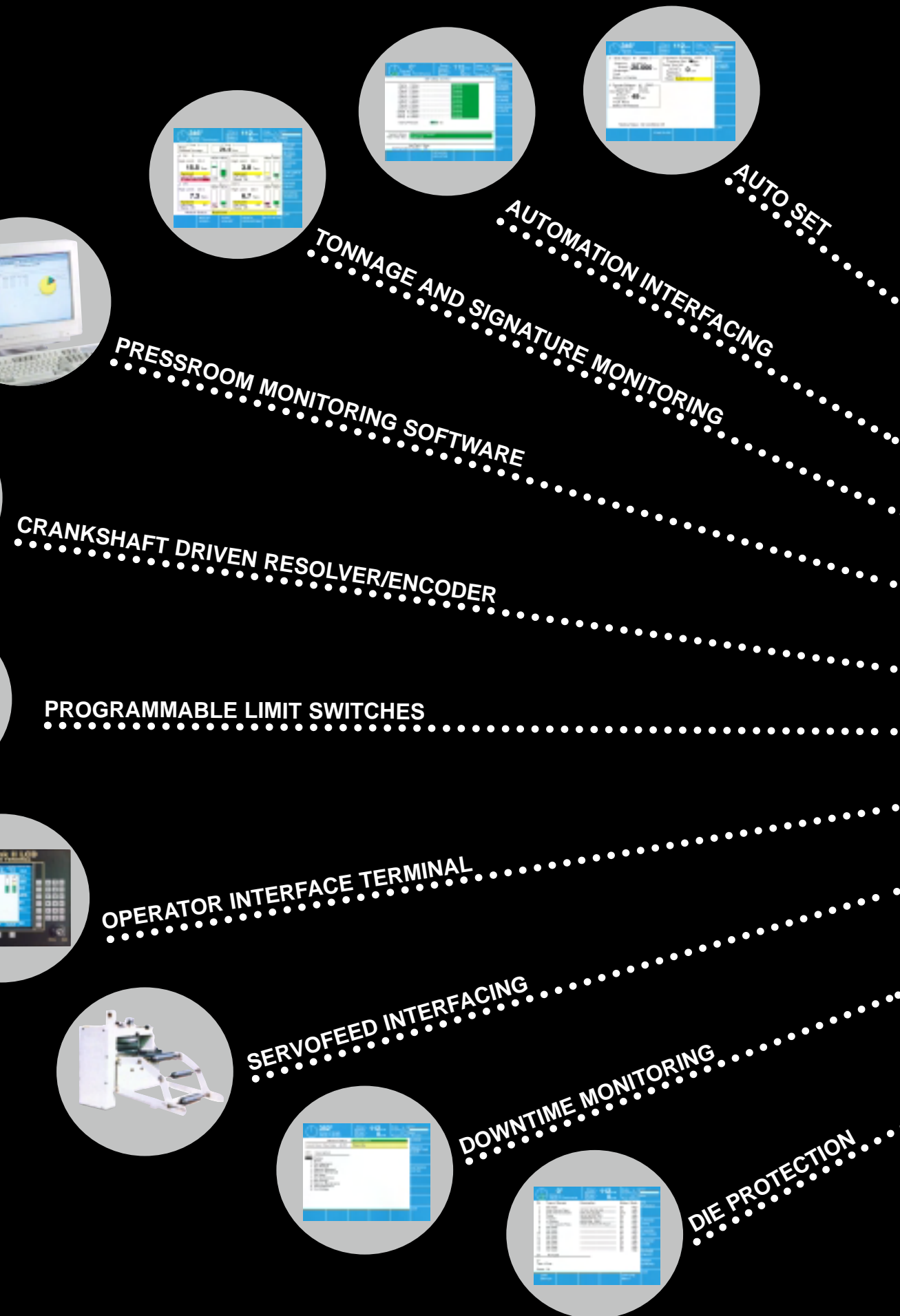
# OmniLink 5000

*A press, automation, and  
monitoring system  
providing a new dimension  
in metalstamping and  
forming process control  
designed to maximize  
efficiency, reduce downtime,  
and increase profits.*



# At the heart of the OmniLink 5000 is the Card Rack

The OmniLink 5000 uses an expandable card rack to control and monitor all aspects of your press and production systems. Items such as motor starters, lube systems, press speeds, counterbalances, and shut heights are all controlled and monitored through the very user-friendly, high-resolution, color operator monitor.



**Meets or exceeds all OSHA 1910.217 and ANSI B11.1 standards**  
...including control reliability. This is accomplished through two separately powered microprocessor systems, each performing clutch/brake logic independently and cross-checking each other. If either fails, the control will issue a stop signal and prevent successive strokes until failure is corrected. All critical clutch/brake logic is stored in Eprom Memory.

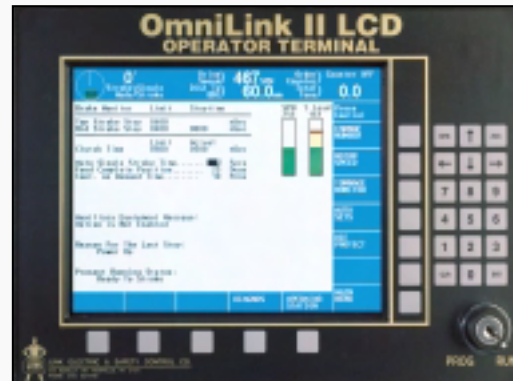
## The OmniLink 5000

This press and automation control brings a new dimension to mechanical power press production systems – the dimension of affordable total integrated process control through intelligent, microprocessor based technology designed to increase productivity, safety, parts quality, production information, and machine and tooling uptime.

Every OmniLink press control is **custom engineered**. You, our customer, always get a technology tailored to your unique needs and desires, have all press functions and diagnostics **on ONE screen**, and are provided with **expandability** for future solutions.

## LCD Operator Interface Terminal

- Provides monitoring and keyboard programming of all press control modes, brake monitor setpoints, PLS set points, die protection parameters, tonnage and signature limits, feed and automation settings, shut height, counter balance pressure, die protection and overload settings, job notes, access codes, twelve counters, and recall and storage of at least 500 jobs.
- Displays ALL control, diagnostic, and process information in plain English and Spanish.
- Graphic and numeric display of crank angle and critical operational items.
- Eight selectable standard set-up modes:  
 Set-up, Inch, Timed Inch, Single Stroke, Continuous, Automatic Single Stroke, Continuous on Demand, Operator Maintained Continuous.



*“Our operators like the simplicity and visual layout of the various menu screens throughout the system... the OmniLink 5000 allows for quick setup and fast job changeover.”*

**Skip Nieberding**  
**Stamco Industries**  
**Euclid, OH**

## Card Rack

The OmniLink 5000 construction is modular, allowing optional hardware for various monitoring and control functions to be inserted in the **card rack**. It uses cards that slide in and out of the card rack effortlessly for ease of expansion and maintenance.

By using a modular system, adding options such as die protection, tonnage monitoring, autosets, etc. is an easy task.

The whole **OmniLink 5000** is designed for ease of use, enhanced productivity, and future expansion so that you are always at the forefront of technology.

The **OmniLink 5000** card rack can provide the needed flexibility to gain stamping process advantages for manually fed presses, automatically fed press systems, and presses integrated into production cells.

*No other manufacturer offers this system for ease in expansion and maintenance.*



### Card Rack

- Houses all logic functions (standard and optional).
- Electronics are located on compact plug-in modules.
- Designed to be mounted in enclosures with motor controls.



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## Diagnostics

*Having ALL your information regarding the press, its operation, and the process on one screen is invaluable. The OmniLink is custom engineered for that particular reason. It can control and monitor all press functions, automation equipment, and peripheral equipment so that you can get on with what you do best... produce stamped parts.*



Knowing exactly what is going on in your process is paramount to productivity. The OmniLink with its **“Reason for Last Stop”** and **“Present Running Status”** provides in plain English or Spanish the necessary information to keep you up and running, which means you’re **profitable** quicker and your bottom line stays **in the black!**

*“No other system on the market today is as complete or easier to use than the OmniLink 5000.”*

*Steve Barfels  
 Cosma International  
 Montezuma, IA*



## Multilingual

Spanish is another standard feature. One press of a key toggles between English and Spanish, allowing you to see the screens in your preferred language.



*“I’ve tried other press control systems and none work as well as the OmniLink 5000.”*

**Carl Barba**  
 Elm Machining Co.  
 Elmhurst, IL

## PLS

Eight standard **PLS** outputs, with an additional 8 optional outputs, are available to sequence all your peripheral equipment. The **OmniLink** provides tremendous ease in set-up of these outputs, including the graphic display of PLS settings.



## User-Defined Feedback

The information displayed in the upper center and upper right hand sections of the screen are user definable for both production and set-up modes. This information is available on all screens. Depending on which mode you are in (Production or Set-Up), this area will display the information that **YOU** deem important.



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## Auto Setup

Link's Auto Setup feature on the OmniLink 5000 makes set-up much easier. It is a card that is simply inserted in the card rack that can adjust shut height, counterbalance air pressure, cushion air pressure, and hydraulic over-load settings automatically on a job-by-job basis. It results in less time spent in changing jobs and dies. It means fewer scrap parts, more efficient use of your equipment, and more profit on your books through more consistent setups.



### Auto Setup

- Up to 2 shut height controls.
- Up to 4 air system controls.
- Hydraulic overload trip control.

*These features assure you that setups are exactly the same each time a job is recalled.*



### Reasons for Counterbalance Adjust

- Decreases the worst case stopping time.
- Takes up bearing clearances before the die closes at the bottom of the stroke. This reduces impact on bearings and drive components.
- Reduces peak motor current.

### Advantages of Shut Height Control

- Consistent and accurate Set-ups.
- Set up time is reduced.
- Reduces trial and error.

### Advantage of Hydraulic Overload Trip Control

- Allows setting of trip point to the load required by the job instead of setting it to the machine rating.

*“The OmniLink 5000 allowed us to do as much work on one press as was done previously on three presses.”*

**Doyle Stephens**  
**Canon Equipment Co.**  
**Chattanooga, TN**



## Tonnage and Signature Monitor

The tonnage and signature monitor helps protect your dies and machine and helps ensure quality control by stopping the press if any variations in the process due to dies, material or press, violate the established limits for a good part. This maximizes the tool and machine performance so quality parts are produced and less time is spent being down.

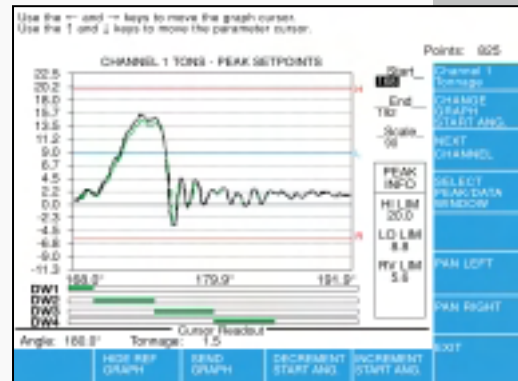
By monitoring the die performance and wear, when there is a problem, the area can be pinpointed rapidly so that you can correct it and get back to making parts.

Use of the data window feature allows low and high limits to be established for up to four angular regions of each channel's signature.

The use of the signature waveform allows out-of-tolerance areas to be pinpointed quickly. When good parts are produced, the signature (green) can be stored for benchmarking and process analysis against the current signature (black) so that die makers can make the necessary changes to optimize and determine maintenance scheduling based on performance.



- Two or four channels
- Forward or reverse tonnage
- Four data windows



- Signature display
- Auto setup
- Wave form

The die protection module offers you the latest in die protection technology for detecting process faults to improve the quality of your stamped parts and protect your dies, with inputs for 16 sensors.

All 16 sensor channels can be named for quick troubleshooting on a job-by-job basis. The screen indicates what type of monitoring function is being used, and, if applicable, the on/off angles are displayed both graphically and numerically.

To aid in initial monitoring set up for a die, the module allows selection of pre-programmed monitoring functions. Just choose your selection for each channel and move on.

## Die Protection

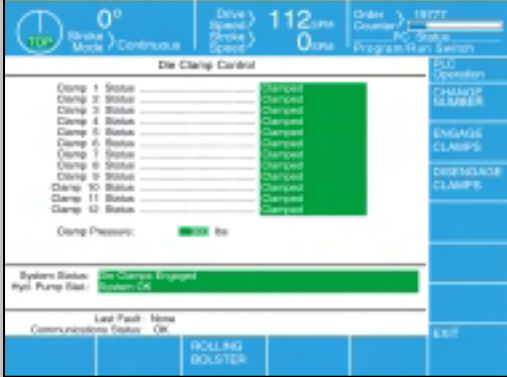
| Ch | Type of Sensor       | Description         | Status | Die Protection |
|----|----------------------|---------------------|--------|----------------|
| 1  | Not Used             |                     | On     | High           |
| 2  | Static Normal Open   | STOCK BUCKLING      | On     | High           |
| 3  | Static Normal Closed | END OF STOCK        | On     | High           |
| 4  | Cylinder             | BLIND RESTRICTED    | On     | High           |
| 5  | Transition           | GRIPPER FAULT       | On     | High           |
| 6  | In Position          | MATERIAL FAULT      | On     | High           |
| 7  | 1 Pin Detector/Pass  | PART DETECTOR FAULT | On     | High           |
| 8  | Not Used             |                     | On     | High           |
| 9  | Not Used             |                     | On     | High           |
| 10 | Not Used             |                     | On     | High           |
| 11 | Not Used             |                     | On     | High           |
| 12 | Not Used             |                     | On     | High           |
| 13 | Not Used             |                     | On     | High           |
| 14 | Not Used             |                     | On     | High           |
| 15 | Not Used             |                     | On     | High           |
| 16 | Not Used             |                     | On     | High           |
| Ch | Not Used             |                     |        |                |

At the bottom, there are buttons for 'LIMIT SWITCH' and 'CAPTURE INPUT'.



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## PLC Interface



**Die Clamps**—all critical information is color coded for quick reference. The system shows when the clamps are disengaged, in the process of engagement, and engaged and locked.



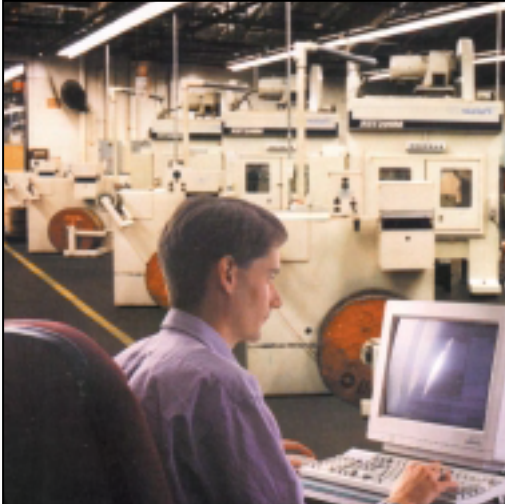
**Moving Bolsters**—the screen will show the bolsters moving in and out, which is in place and locked, and all critical information color coded for quick reference.

There are many processes that require the integration of a small PLC to handle items such as rolling bolsters, automatic clamping systems, transfers, robotics, stackers and destackers, etc.

It is vital to productivity to have these items set up with each job and have the ability to be monitored by the press control. The OmniLink 5000 provides 4 dedicated screens specifically for PLC interfacing. This allows you to have all your functions still available on one screen, storage and recall for each job, and profit from having all the diagnostics necessary to keep your process running at optimum efficiency.

Why continue to work with multiple terminals when you can have it all on one? One OIT to learn, one place to check faults, one place to check parameters, one place to store and recall your jobs.





The Link network system (LinkNet) is a software product designed to be used with standard IBM architecture personal computers running Windows 95, Windows 98 and higher, or Windows NT 4.0. LinkNet will allow the OmniLink 5000 Press and Automation Control, MicroLink OIT, and System 1100 Tonnage Monitor to report job information and status back to your PC for storage, display, and printing. This network enables the use of downtime codes (DTC's) for each machine and tracks production.

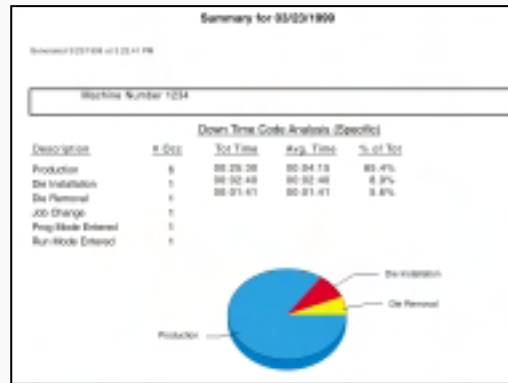
## LinkNet

*Provides the following with the OmniLink 5000:*

- Average tonnage, highest tonnage, lowest tonnage, collected in ten minute intervals.
- Tonnage signatures.
- Production rate in 10 minute intervals.
- Press notes.
- Die notes.
- Die usage information.
- Job storage and recall.
- Down time codes.
- Press utilization.
- Automatic logging of events such as tonnage monitor alarms, bypass changes to tonnage monitor, die protection faults, and part counter limits.



*Down time codes as they appear on the OmniLink 5000 screen.*



*Down time analysis as it appears on the LinkNet PC screen.*



LinkNet puts all the information you need right in one place, on your computer screen. LinkNet allows you to make crucial decisions right on the spot and in a split second. It also gives you all the information that you need to maximize the profitability of your operation. Ask your Link representative or call Link direct. Either will be pleased to answer all your questions about keeping your bottom line *in the black!*

H&O DIE SUPPLY, INC. 800-222-5441 sales@hodie.com  
*helping to keep your bottom line in the black!*



Link Systems designs, develops, and manufactures electronic controls, monitors, and safety devices for the metal stamping and fabricating industry. We are an engineering company committed to providing practical solutions to our **customers'** needs for automation, productivity, quality, safety, and shop floor information storage and retrieval.

Our product line is flexible enough to provide a specific control or monitoring function or to provide integrated systems for **your** presses. Link supplies products and systems to both the retrofit and OEM markets. We also provide engineering consultation, installation, and repair services for our systems.



*Helping you keep your bottom line in the black!*

Our control products provide the latest reliable technology to increase safety and productivity and reduce set up time.

Our light curtain safety devices protect against hazards while allowing accessibility and visibility for the operator.

Our monitoring systems can help prevent machine and tooling damage and reduce production of scrap parts.

Link's commitment is to continually improve and expand its product line to provide **you** with the needed tools to be a leader in a fiercely competitive marketplace.



## LINK SYSTEMS

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