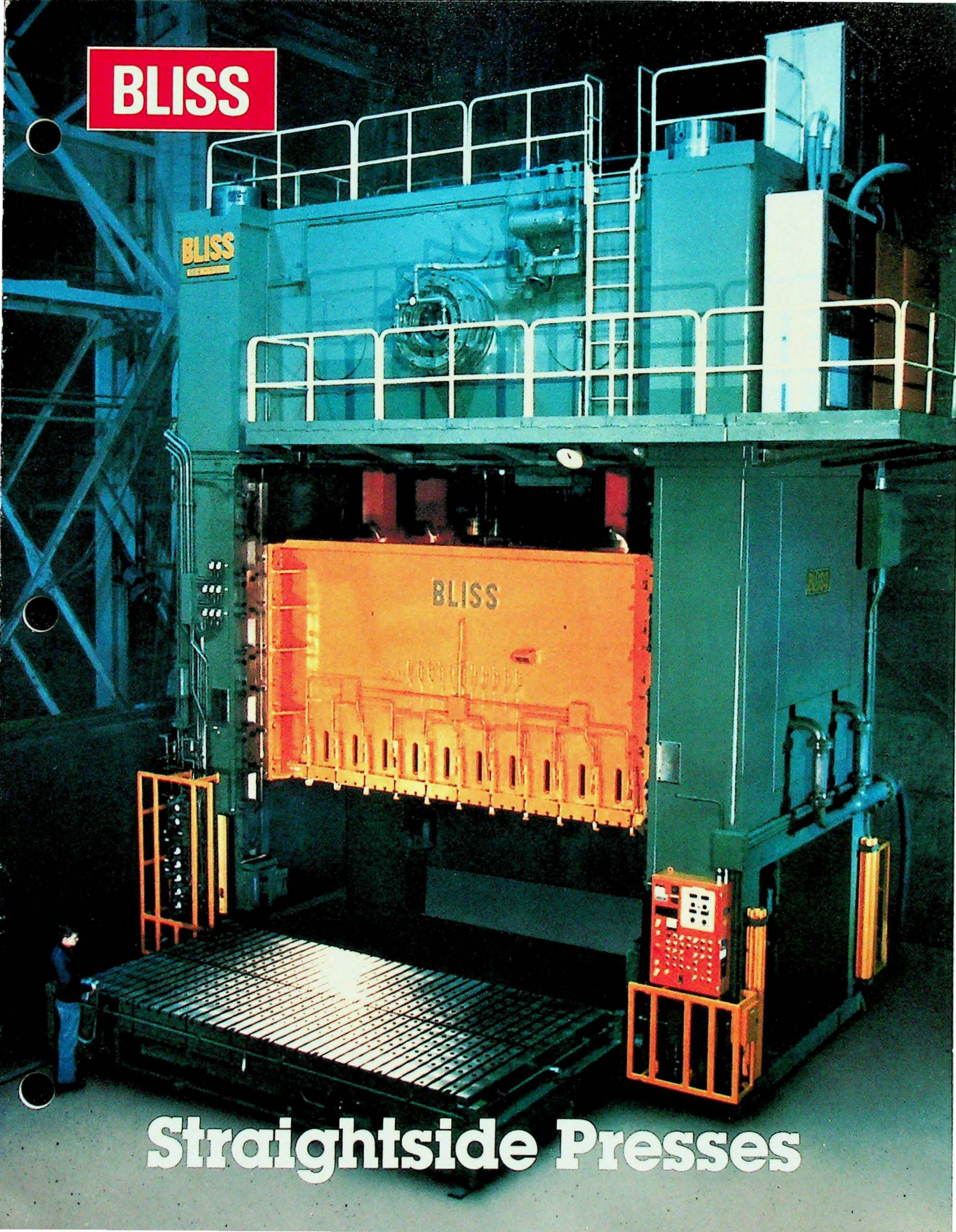




BLISS

Straightside Presses

BLISS Features that make a difference

Since 1857: The Name You Can Count On

We have always specialized in the design and manufacture of metalforming presses. Over the years, we have supplied over 375,000 units to companies who recognize the value of our experience, and our commitment to quality and customer service.

We are a leading supplier of a wide variety of mechanical and hydraulic presses, ranging from 22 to 8000 tons. The heart of this line is represented by the

straightside presses shown on these pages.

Bliss continues to lead the way in product innovation and new applications, and we work closely with our customers to assure that specific needs are met most effectively. This involves our unique ability to combine the efficiencies of product standardization, with the flexibility of custom engineering.

Bliss uses the latest, electronic

technology to produce totally integrated systems with programmable controllers. And, we are aware of the continued need to build this new technology onto the solid foundation of quality and dependability that have been our hallmark from the very beginning.

H-Style Frame Design

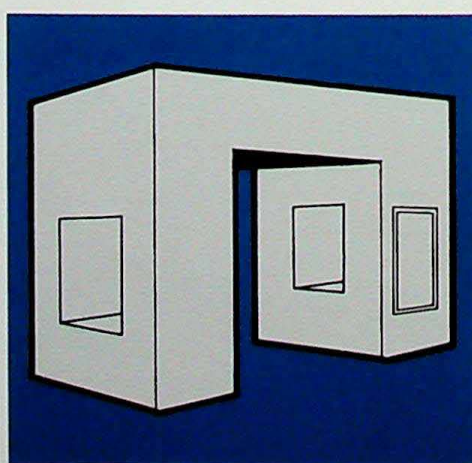
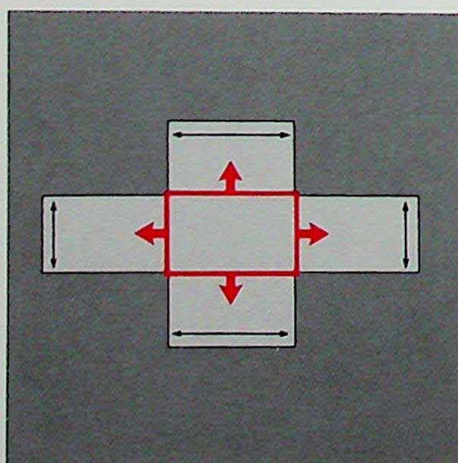
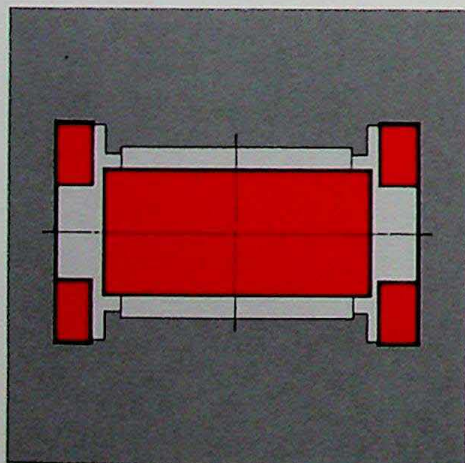
New flexibility in the window width opening gives Bliss the largest standard window openings in the industry. From semi H-frame design to full H-frame design, the uprights can be tailored to your requirements. The advantages of wide window openings include easy addition of transfer equipment, the ability to feed wide coils of stock, and the ability to remove dies and run conveyors through the opening.

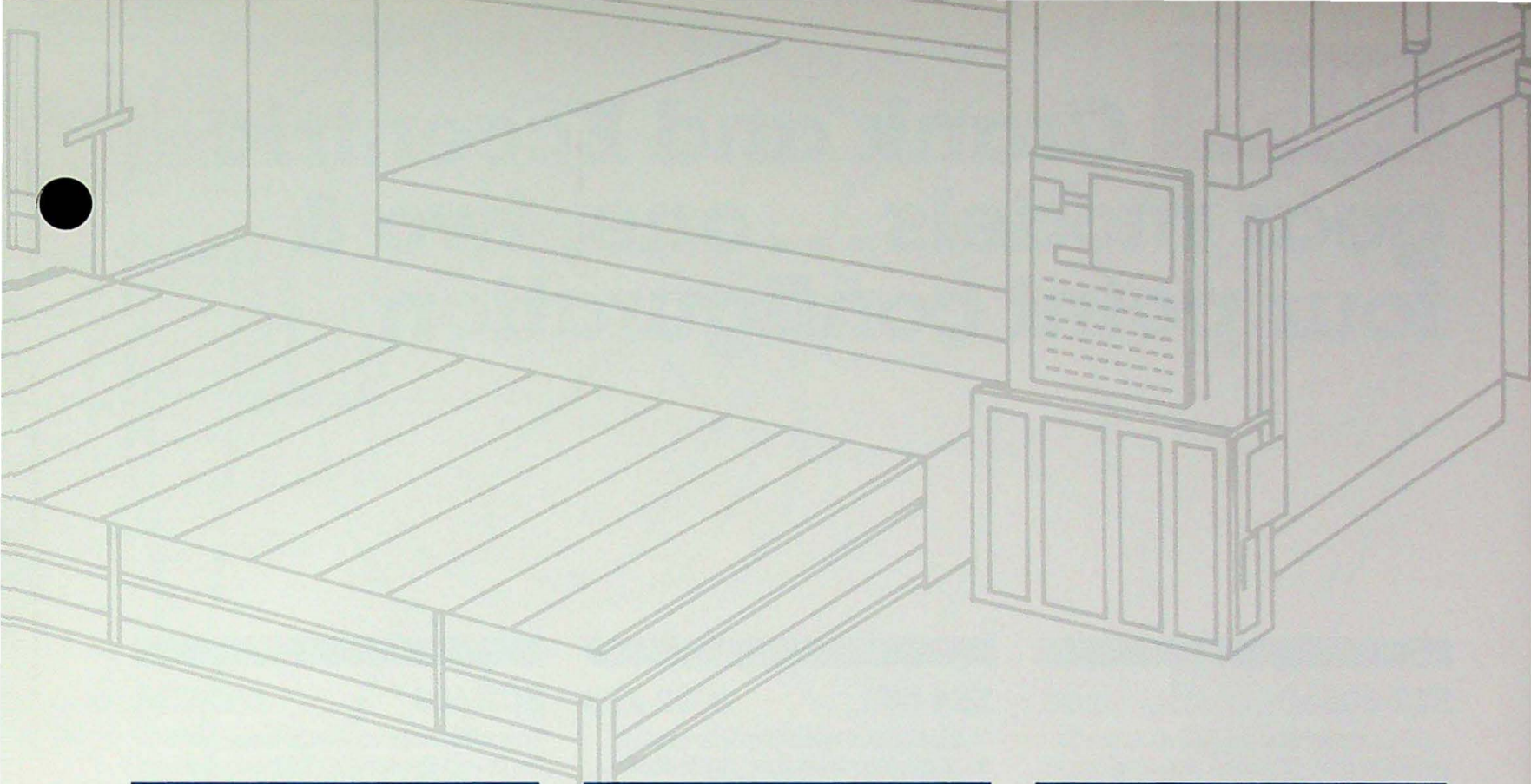
Bi-Directional Bolster Movement

Another benefit of our H-Style frame design is that it allows for bolster movement in any of the four possible directions, depending on how the tracks are laid. This unique feature gives you maximum plant layout flexibility, and provides for quick die changes, and the ability to load one bolster outside, while the press is still working a second bolster if desired.

Inbuilt Straight Side Design

Recessed control panels, ease of accessibility to wiring and piping, clean smooth looks, and protection against external damage are all reflected in the new SC and SE design lines.





8 Point Gibbing

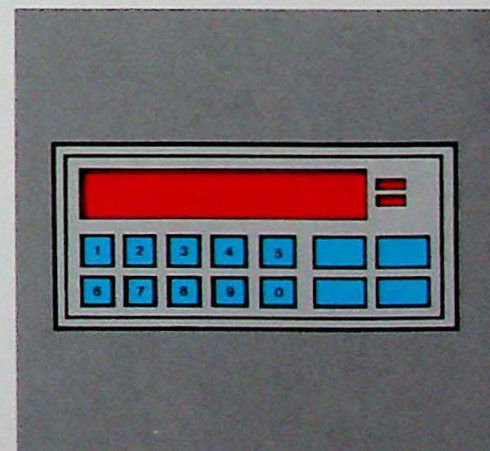
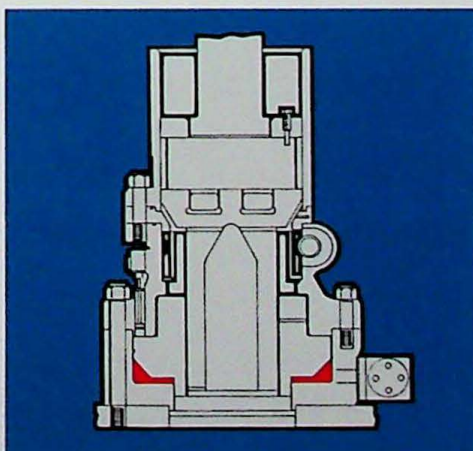
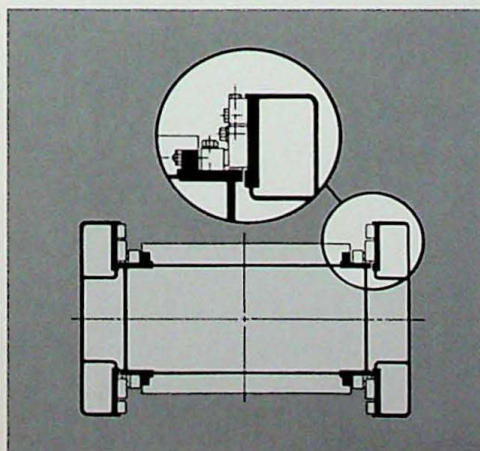
This type of gibbing provides maximum guidance of the slide at all four corners, and in both directions of thrust. The wear strips are on all eight slide ways. The extra long gibs maintain excellent parallelism between bed and slide, since the slide remains in the gibs in all positions of stroke and slide adjustments. Bronze or phenolic liners are used for wear strips, and solid shims are used to maintain the gib adjustment.

Hydraulic Overload Protection

This option is for all SC and SE presses. It protects against possible damage to press and dies due to setting errors or accidental overloading. The system incorporates a hydraulic cylinder at each point of pressure, designed to operate a relief valve when the pre-set pressure is exceeded. An exclusive feature of our system is that it will relieve pressure at ALL connections, even on offset overloading. Overload pressure settings can be made by remote control.

Programmable Limit Switches

Programmable limit switches have key pads set at eye level as standard on all SC and SE series of presses. Backing up the programmable limit switch is a factory-set mechanical switch to allow for redundancy in the position rotary cam circuit. Eight spare contacts are furnished for the customer's use in automation equipment. Additional contacts are available as an option.



BLISS Crank and Eccentric gear models... one, two & four point configuration

SE2-300

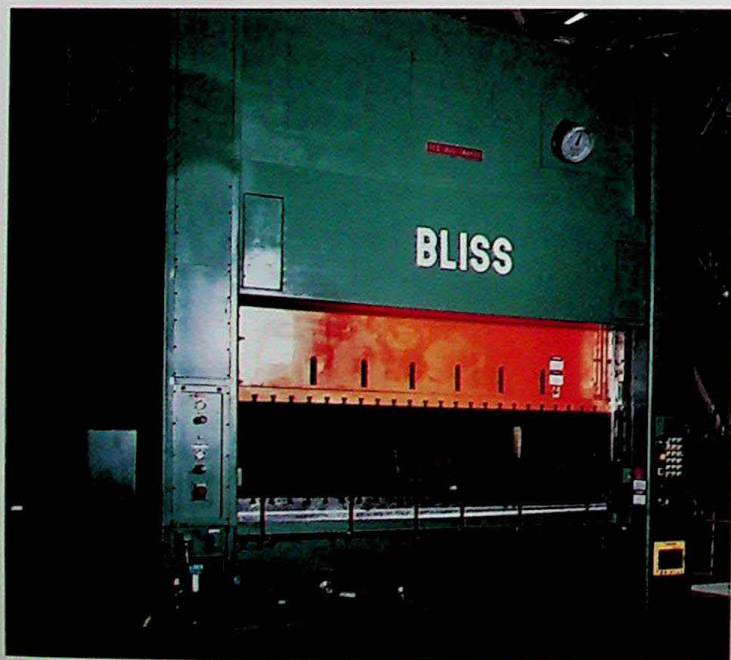
The new design SE2-300 stock press is one of three presses in action for a furniture component manufacturer. By using the standard design machine, delivery is made in a record short time. Presses are presently in production two shifts 6 days a week and are exceeding all performance expectations.

SE4-500

SE4-500 is used by this major manufacturer in the appliance industry. The SE4-500 is equipped with modern electronic roll feeds and furnished with specialized accessories. It was able to go into production in a very short time after its arrival at the factory. This early production start up was achieved by installation and try out of the complete system prior to shipment to the user's factory.

SC2-600

This 600-ton press was designed for a manufacturer of heavy motor plates. Its special structural arrangement permits full concentrate tonnage on one-third (1/3) of the normal bed area. Call the Bliss team for special applications in engineering.



SE2-300



SC2-600

SC2-500

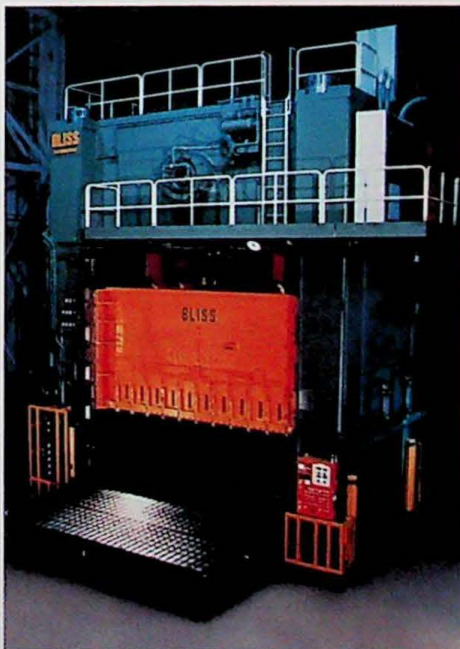
This manufacturer of truck accessories selected the Bliss SC2-500 out of a stock program. Delivery was critical and high-speed blanking was a necessity. Closely working with the customer's feed supplier, Bliss was able to deliver the press pre-wired for attachment to the customer's feed. The Bliss stock press was available for short delivery allowing them to meet immediate production demands.



SC2-500

SE4-2500

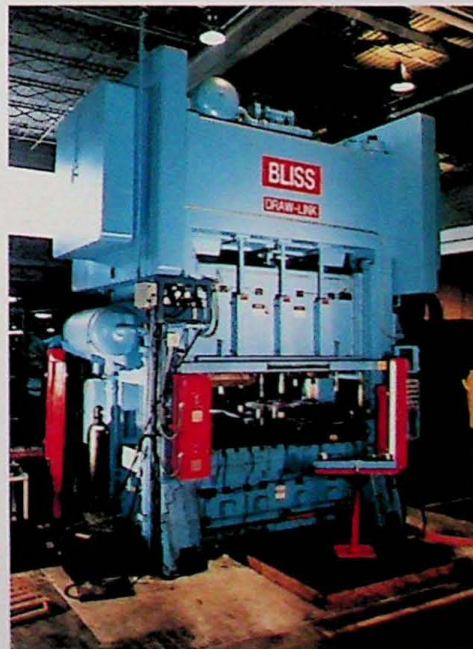
A pair of these large 2500 ton, 4-point design presses was selected by this major automotive component manufacturer to minimize die change overtime. The two presses are furnished complete with two rolling bolsters each, moveable in all four directions. A common track allows the bolsters to interchange between either of the two presses.



SE4-2500

Draw Link Option

One of the many draw links being sold to the industry to improve productivity in drawn and formed parts is now in production at a climate-controlled manufacturer. Production increases for this type of press are projected to be a 70 percent increase in this application, increases in tooling life, reduction of impact noise levels, and high productivity are expected for draw link presses.



Draw Link Option

BLISS

Consider the benefits of our exclusive Draw-Link option

Increases Productivity Decreases Noise, Stress and Damage

The draw velocity of steel can limit conventional press production, by forcing a fewer strokes per minute. The Draw-Link overcomes this natural limitation by slowing down the work portion of the stroke, and then speeding up during the return stroke. This has the effect of virtually doubling the productivity of the press without exceeding the draw limitations of the workpiece.

Extends Tool Life

While producing more parts per minute, a press fitted with the Draw-Link option creates less tool wear because of the reduced drawing speed. It creates better operating efficiency, two ways.

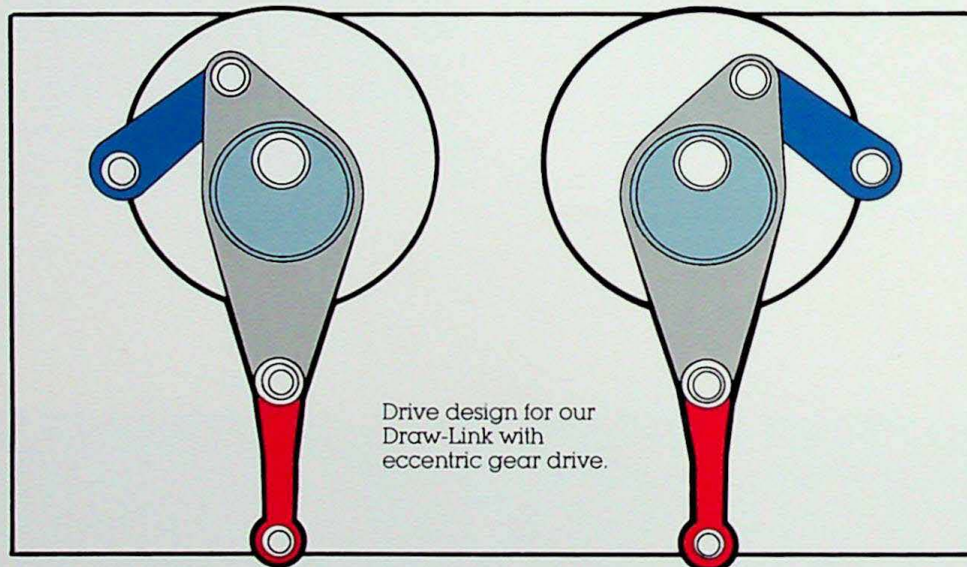
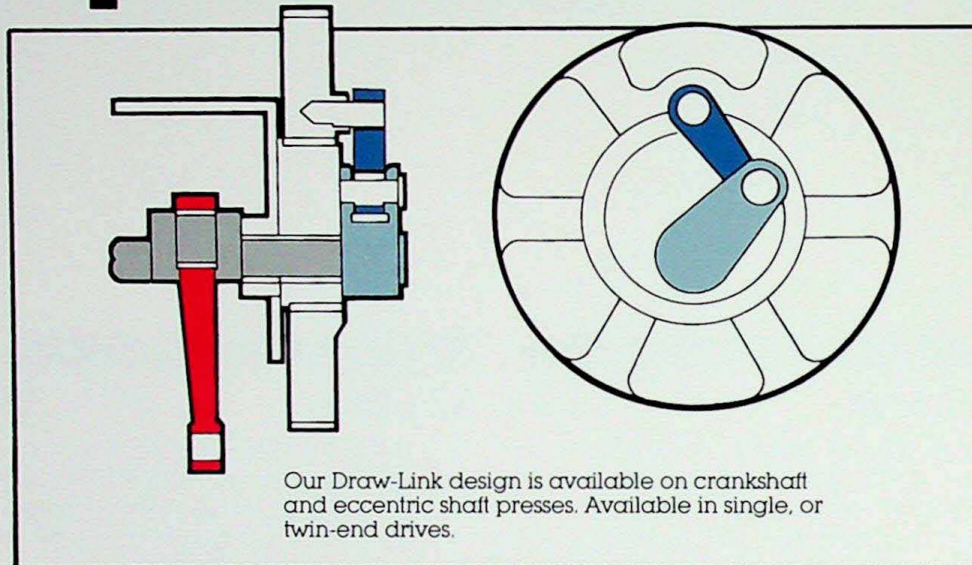
- A. Reduced tool impact speed.
- B. Faster cycle rate with reduced draw speed.

Reduces Noise

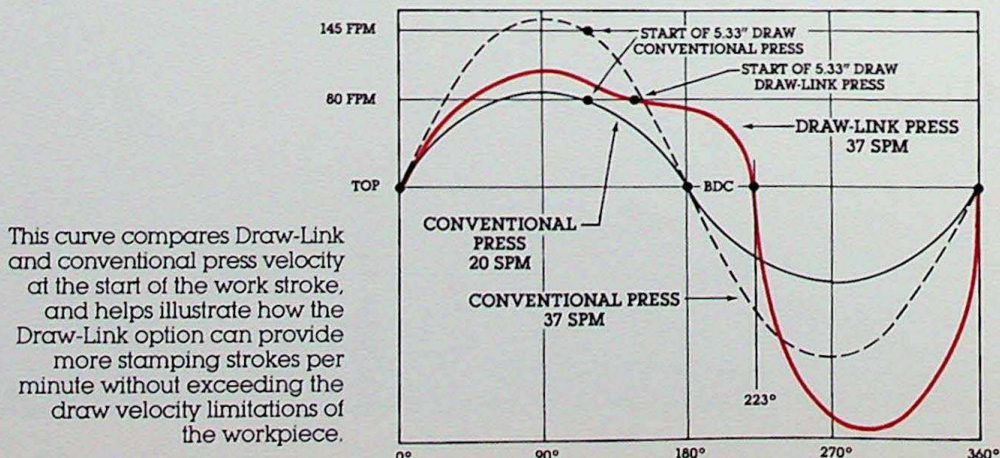
The same slowing of the draw cycle and reduction of impact that produces all the production advantages, also works at a lower noise level. The result is high, overall speed with consistent low noise.

Available on Most Bliss Press Configurations

For all its advantages, the Draw-Link option does not cause high cost custom design problems. The draw link drive is simply added to our standard, rugged, Straight-side crankshaft and eccentric-gear presses. This unique option can assure you of a fast payback for a minimum investment.



Typical Velocity Comparison





Count on our Customer Service and Technical Assistance

Every BLISS press is backed by a one year limited warranty. Our experienced technical support staff is ready to meet the engineering and design requirements of virtually any application. Our customer service and parts headquarters, along with our computerized inventory system, ensure quick delivery of replacement parts or accessories.

For technical assistance or information on prices and delivery, call our 24 hour Customer Service Hotline: 1-800-64-BLISS.



Standard Features

- Variable Speed Eddy Current Drives with Automatic Top Stop
- Air Counterbalance
- Programmable Rotary Limit Switches
- Electronic Shutheight Indicators
- Electronic Stroke Position Indicator
- Production Counter
- Hydraulic Tie Rod Nuts
- Machine Pads on Each End of Bed for Feed Alignment or installation
- Re-circulating Oil With Lube Monitoring
- 8 Point Gibbing
- Tee Slots in Slide and Bolster
- Wide Windows
- Outlets for Die Blocks
- Flywheel Brake
- 115V Line Voltage Outlets at Each Corner

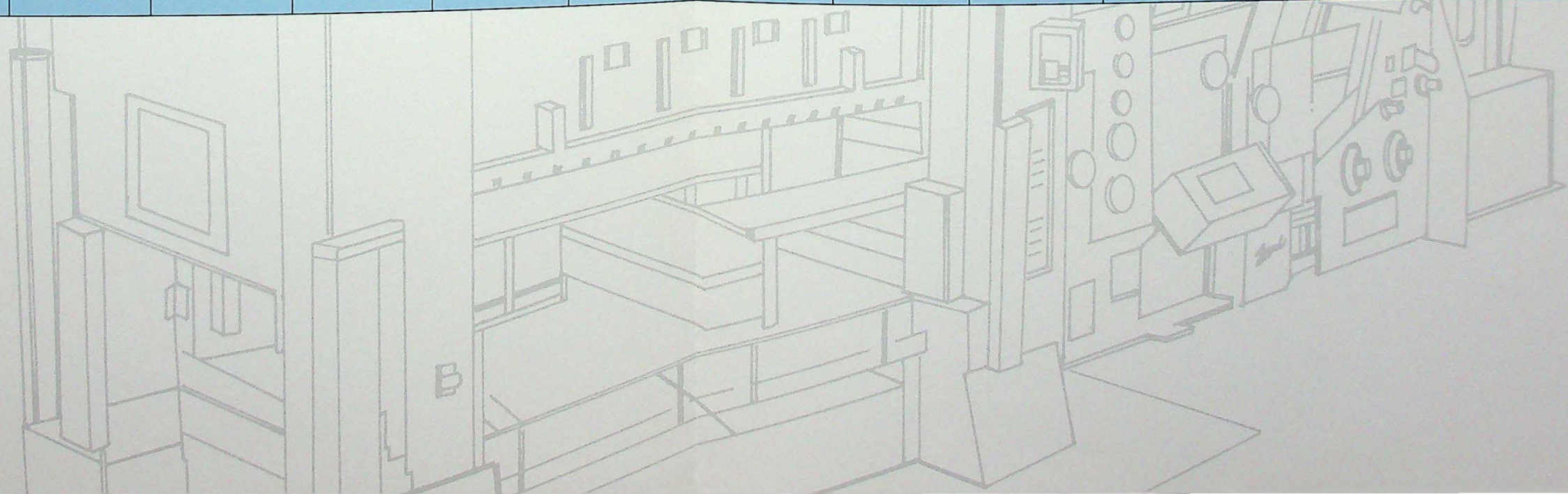
Standard Options (most often specified)

- Tonnage Monitoring
- Hydraulic Overloads — 19mm Stroke
- Bearing Temperature Monitors
- Programmable Controls
- Die Cushions — Internal-External-Center Post Guided
- Quick Die Change Systems
- Rolling Bolsters — bi-Directional
- Electrical Interface Systems
- Die Space Lights
- Coil Feeding Equipment
- Transfer Feeds — Press Driven and DC Servo
- Ladders and Railings
- Die Space Enclosures
- Mounting Surfaces for Custom Equipment

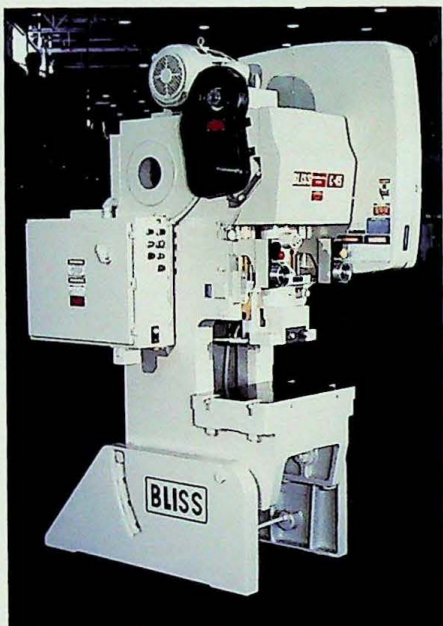
Standard Designs for Crank & Eccentric Geared Straight Side Presses**

TONNAGE	150	200	250	300	400	500	600	800	1000	1250	1500 1600	2000 2500
SINGLE POINT (S1 and SE1)												
Stroke Length Eccen. Shaft	8	10	10	10	12	12	14	NA	NA	NA	NA	NA
Maximum* Crankshaft	12	14	14	16	20	20	20	NA	NA	NA	NA	NA
Eccen. Gear	NA	NA	18	18	20	20	24	28	28	30	30	30
Std. Bed Sizes L-R x F-B	27 x 33	30 x 36	30 x 36	36 x 42	36 x 42	42 x 48	42 x 48	48 x 54	48 x 54	54 x 48	60 x 64	66 x 72
TWO POINT (SC2)												
Eccen. Shaft - Max. Stroke*	8	10	10	10	12	12	12					
Crankshaft - Max. Stroke*	12	14	14	16	16	20	20					
Std. Bed Sizes L-R x F-B	48 x 36 48 x 42 60 x 36 60 x 42 72 x 36 72 x 42	48 x 42 60 x 42 72 x 36 72 x 42 72 x 48 84 x 42 84 x 48 96 x 48	60 x 42 72 x 42 72 x 48 84 x 48 96 x 48	60 x 48 72 x 48 84 x 48 96 x 48 96 x 54 108 x 54 108 x 60	72 x 48 84 x 48 84 x 54 96 x 48 96 x 54 108 x 54 108 x 60	72 x 60 84 x 54 96 x 54 96 x 60 108 x 54 108 x 60	84 x 48 84 x 54 96 x 54 96 x 60 108 x 54 108 x 60					
TWO POINT (SE2)												
Eccen. Geared-Max. Stroke*	—	—	—	18 84 x 48 96 x 54 108 x 54 120 x 60 144 x 60	20 84 x 48 96 x 54 108 x 60 120 x 60 132 x 60 144 x 60 156 x 60	22 84 x 54 96 x 54 108 x 60 120 x 60 132 x 60 144 x 60 156 x 60	24 96 x 54 108 x 60 120 x 60 132 x 60 144 x 60 156 x 60 180 x 60 240 x 60	24 108 x 60 120 x 60 132 x 60 144 x 60 156 x 60 180 x 60 240 x 60	26 96 x 60 108 x 60 132 x 60 144 x 60 156 x 60 180 x 60	30 120 x 60 144 x 60 156 x 60 180 x 60	30 132 x 66 144 x 60 156 x 66 180 x 66	30 132 x 60 144 x 60 156 x 66 180 x 66
FOUR POINT (SE4)												
Eccen. Geared-Max. Stroke*	—	—	—	24 120 x 84 144 x 72	24 132 x 72 144 x 72 156 x 72 156 x 84	24 120 x 72 144 x 72 156 x 72 156 x 84	28 120 x 72 144 x 72 156 x 72 156 x 84	28 120 x 72 144 x 72 144 x 84 156 x 72 156 x 84	30 120 x 72 144 x 72 144 x 84 156 x 72 156 x 84 156 x 96	30 144 x 72 144 x 84 156 x 84 156 x 96 180 x 84 180 x 96	30 144 x 72 144 x 84 156 x 84 156 x 96 180 x 84 180 x 96	30 156 x 84 156 x 96 180 x 84 180 x 96 204 x 102

* Maximum stroke in standard crown.
 ** Other designs available on request.



BLISS Let Bliss custom design a press to fit your needs



By adapting existing Bliss designs, we can economically and efficiently custom design a press specifically for your operation. A variety of designs and options is available.

For Sales Assistance on Machinery or Parts Contact:



BLISS

E.W. BLISS COMPANY

1004 East State Street, Hastings, MI 49058

PHONE 616 948-3300 • FAX 616 948-3313 • TELEX MCI #6502944771

BLISS

Bliss Presses – Safe Scrap Removal

Bliss Presses are engineered for decades of service due to superior weldments and stress distribution. However, at the end of service life, presses must be removed safely. When removing a Bliss press, safety is the highest priority due to massive size of the equipment and frequent lack of space.

The most effective way to remove a press is to cut it into several parts, starting with the tie bars. Upon cutting the tie bars, remove the crown using a large boom torklift or crane, then remove the sides, the slide, and finally the bottom.

In the Chicago Area, Bliss recommends that Chicago Machinery Movers does the removal. Call Igor at 630-235-6603 to schedule an appointment for site evaluation and removal. Unlike other local riggers, Chicago Machinery has heavy duty oxy-fuel torches, large forklift and personnel to remove your press.

**BLISS**

E W: BLISS COMPANY
1004 East State Streest, Hastings, MI 49058