

Pacific Hydraulic Press Brakes

J-SERIES



# the fast, new hydraulic press brake that challenges the "mechanical minded"

Now, from Pacific, a hydraulic press brake that challenges, for the first time, the productivity and reliability of mechanical brakes in the volume production market. The versatile, new J-Series can outperform both mechanicals and other hydraulics in medium range applications in terms of speed, accuracy and dependability.

The true measure of productivity of a press brake is the number of accurate parts it can produce per day rather than the number of "no-load" strokes per minute the machine can perform. Set-up time, material handling time, gauging time, and machine cycle time are all factors that determine productivity.

The Pacific J-Series means productivity. It gets into production faster, matches the conditions required to form the piece, is easy for the operator to use, and has an extremely short cycle time.

## FAST SET-UP TIME

Since fast set-up time can be the key to high production on a press brake, the J-Series has been designed for set-ups that can be measured in minutes. The long, full power, hydraulic stroke provides ample space to greatly facilitate the setting of dies. "Jog" and "Set-Up" controls enable the operator to determine "bottom of stroke" in seconds. Simplified, slide-type speed change, depth, and back travel stops can be adjusted instantly—and the machine is ready to produce parts.

## FULLY ADJUSTABLE STROKE LENGTH

The stroke length of a Pacific J-Series Press Brake is completely adjustable to match the punching or bending requirements of the job. Strokes can be set to correspond with the rhythm of the operator for maximum productivity.

## HIGH SPEED POWER UNIT

J-Series press brakes are equipped with a high speed power unit to equal or surpass mechanical speeds in almost all applications. Three advance speeds are standard, including an anti-whip speed to eliminate dangerous "whip-up" of parts being formed.

## RELIABILITY

The Pacific J-Series Press Brakes cannot be overloaded or jammed. Since the ram is reversible from any point in the stroke, downtime, due to set-up or operator error is virtually eliminated. Main frame members of the J-Series presses utilize deep steel plates for minimum deflection. Cylinders are rigidly mounted to large key-type backing plates which, in turn, are interlocked to the side housings, assuring true centerline loading and ram level accuracy. Bed loads are transmitted to frame through accurately fitted, large diameter, bearing blocks to eliminate high concentrated stresses and provide maximum bearing surface for stripping loads.

## ACCURACY

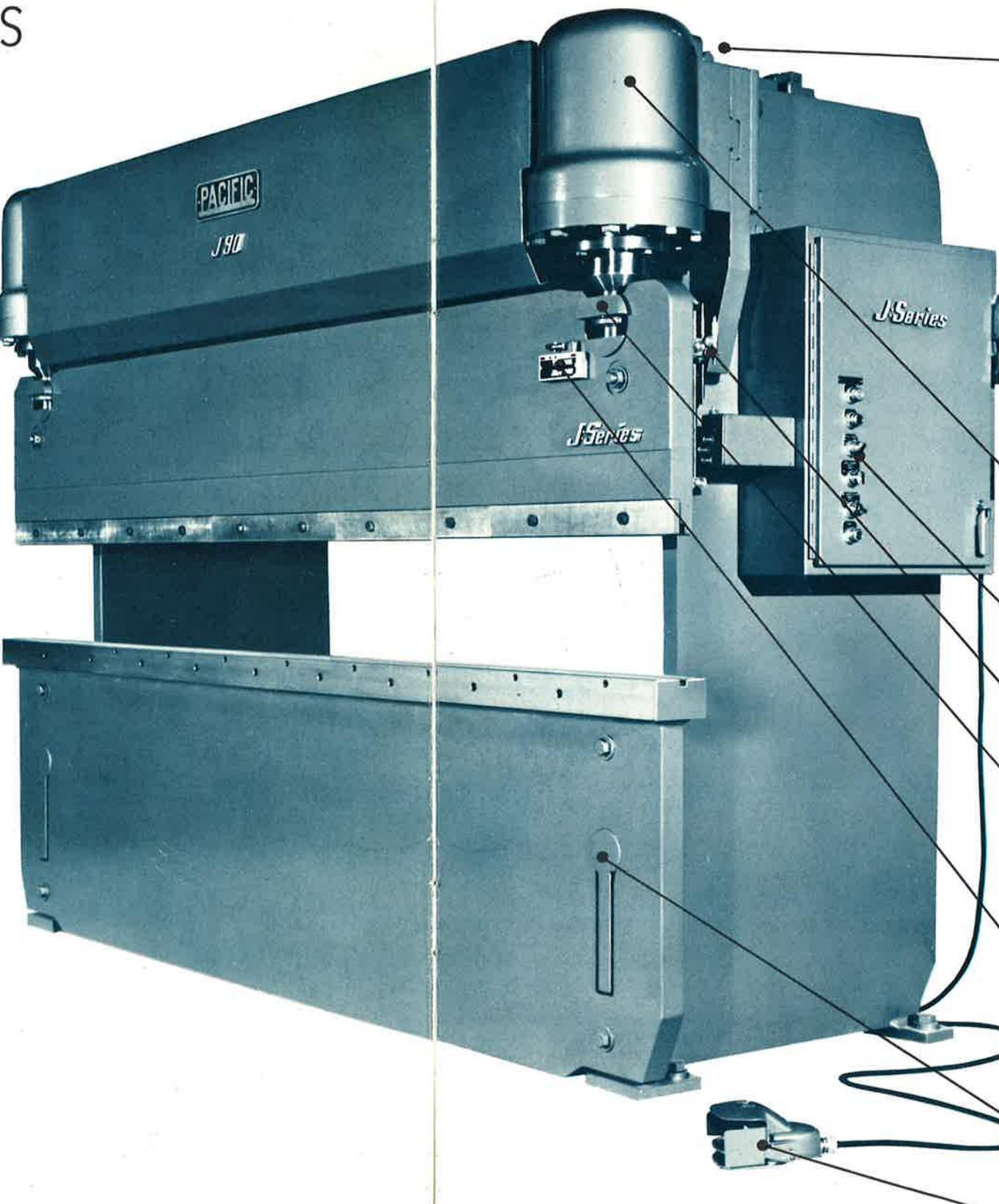
Pacific's patented hydraulic system automatically senses and corrects variations in level error, and provides high repeat accuracy in maintaining ram position regardless of where the work is being done along the bed of the press.

## COMPETITIVE PRICE

Although the new J-Series press brake can outperform both hydraulic and mechanical machines of similar tonnage ratings, it is priced competitively. In eye appeal, the new hydraulic press brake is second to none. Long smooth unbroken lines conceal power unit, piping and connections. The clean, modern appearance and quiet operation makes the J-Series a pride to any shop.

## MEDIUM TONNAGE RATING

J-Series press brakes are available in 40, 55, 75, 90, 110, 135 and 165 ton ratings. The 40 and 55 ton models are built in 6, 8 and 10 feet lengths—the others in lengths of 8, 10 and 12 feet.



### COMPACT THREE-SPEED HYDRAULIC SYSTEM

Power unit is self-contained with motor and pump and is mounted between the side housings to provide maximum work area. Provides easy selection of the combinations of high approach speed, normal press and anti-whip speeds.

### MODULAR STACKED VALVES

Eliminates the need for extra piping and special manifolding. Can be serviced without removal from valve cluster.

### AUTOMATIC RAM COUNTER-BALANCE VALVE

Counter-balance valve to prevent ram from dropping when power is off.

### NON-OVERLOAD RELIEF VALVE SYSTEM (patented)

Prevents over-loading of side frame members and cylinders when operating with left-to-right off-center load between bed and ram.

### AUTOMATIC DECOMPRESSION SYSTEM (patented)

Eliminates shock on up-stroke when forming with polyurethane dies.

### AUTOMATIC LEVEL CONTROL (patented)

Fully hydraulic level control system provides extreme repeat and level accuracy of ram.

### 10 MICRON OIL FILTRATION

Full-flow oil filter is located on top of reservoir thus allowing the "throw-away" element to be easily replaced. Filters out impurities to 10 microns. A visual indicator shows when replacement is necessary.

### HEAVY CAST CYLINDERS

Cylinders are provided with externally adjusted rod packing. Pre-loaded wedge-type key mounting provides greater press accuracy.

### TRUE CENTER-LINE LOADING

Bed and cylinder connections are mounted accurately on side housing centerline, eliminating left-to-right deflection of side housings.

### OPERATING CONTROLS

Allows simple ram control selection of: Continuous Run, Single-Stroke, Jog (inch), and Set-Up (inch with .001" increments). All operating controls conveniently located on right hand end of press.

### STROKE ADJUSTMENT

Slide-type settings simplify stroke adjustments. Long, completely adjustable stroke length with micrometer depth settings to within .001". Both top and bottom stroke settings are fully adjustable to allow high speed operation.

### PRE-LOADED PISTON/RAM CONNECTION (patented)

Provides a large bearing area with low stress concentration. Pre-loaded ram connection eliminates the use of shims and provides a "slack-free" connection with resulting greater press accuracy.

### RAM GUIDING SYSTEM

Rigid, extra-long, non-binding guide system allows intentional ram tilt. Ground slide surfaces designed for high-pressure grease lubrication. Running clearances are externally adjustable.

### FINE TILT ADJUSTMENT

Micrometer fine tilt adjustment with settings within .001". Coarse and fine tilt settings allow maximum tilt of 1½" in 10 feet in both directions.

### MACHINED PLATEN

Wide bed platen is equipped with full length 5/8" wide center slot and die adjusting screws. Tapped holes on front and rear surfaces allow easy connection of gauges and material support brackets.

### RIGID STEEL FRAME CONSTRUCTION

Heavy steel plates used in ram, bed and side frame members provide maximum rigidity, minimum deflection. Bed is interlocked to side frames with large diameter bearing blocks. Frame members may be completely disassembled.

### PORTABLE ELECTRIC FOOTSWITCH

Gives operator full control of ram for set-up and production runs.

adjustable speeds,  
full power strokes and  
precision control mean  
high production  
and versatility

### THREE-SPEED SELECTION

The versatility of the J-Series is exemplified by its three-speed hydraulic system which permits the selection of one or more speeds during the down-stroke. A selector switch enables the operator to choose from three settings the combination of speeds best suited to his job requirements. This choice of advance speeds combined with a high speed return and strokes than can be fully adjusted gives the J-Series its capability for high production performance.

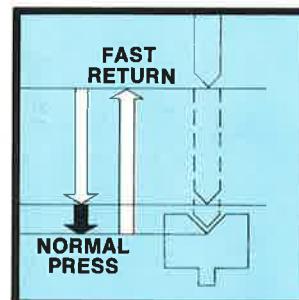
**1. RAPID ADVANCE—NORMAL PRESS** This combination offers a high speed approach with an automatic speed change to a high pressing speed at full tonnage. The speed-change position is fully adjustable throughout the stroke.

**2. RAPID ADVANCE—ANTI-WHIP** This combination provides a high speed approach with an automatic speed change to Anti-Whip speed at full tonnage. The Anti-Whip speed is a slower pressing speed designed to reduce "whip" effect when bending long parts over narrow dies. The speed-change position of Anti-Whip is fully adjustable throughout the stroke.

**3. NORMAL PRESS** The Normal Press setting eliminates the high-speed approach and allows full tonnage throughout the entire stroke setting without resetting the speed change cam.

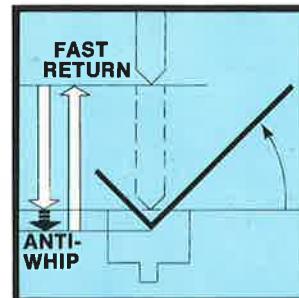
### LONG, FULL POWER STROKES

Unlike mechanical press brakes, there are no limitations that apply to the available tonnage of a J-Series. Mechanical press brakes, by the very nature of their design, have short strokes with full-rated tonnage available only at or near bottom of stroke. Mid-stroke is normally only two-thirds of rated capacity. The longer stroke of a J-Series is completely adjustable with full tonnage available at any point in the stroke. This provides more versatility and greater bending capacities than those of similar tonnage mechanicals. Heavier material can be formed due to the long power stroke being compatible with larger female dies and thicker materials. Every shop doing sheet metal work will have some need for plate forming capability in the forming of brackets, angles and clips. Mechanical press brakes in the medium-tonnage range do not have plate bending capacity because thicker plate requires a longer power stroke than they have available. With Pacific's hydraulic J-Series, you get "bonus-bending capacity" at no additional cost.



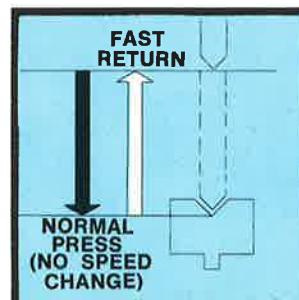
### RAPID ADVANCE—NORMAL PRESS

Speed selection allows Rapid Advance and Normal Press speeds to be used automatically during a stroke. Normal Press is a full tonnage speed. The speed change point is determined by an adjustable cam.



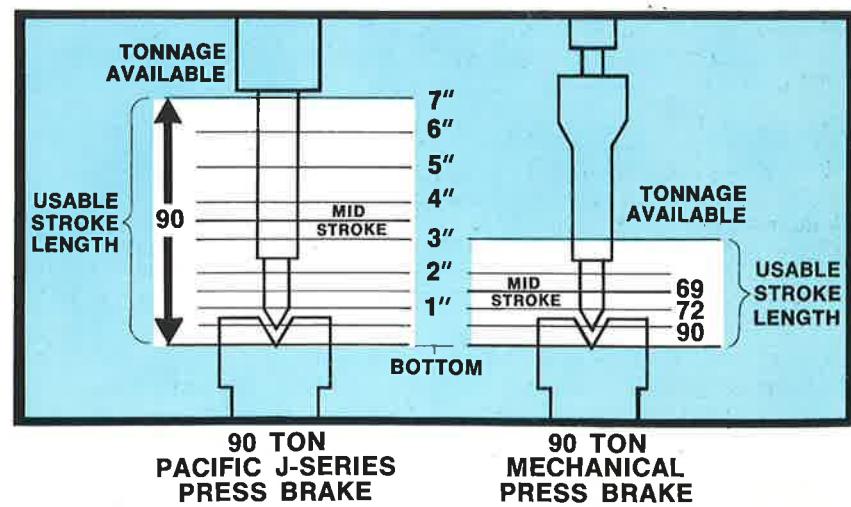
### RAPID ADVANCE—ANTI-WHIP

The Anti-Whip portion of the stroke can easily be programmed into the cycle, thus giving maximum productivity on long parts. Eliminates the need to inch the footswitch or, in the case of a mechanical, slip the clutch to prevent "whip-damage" to long parts.



### NORMAL PRESS

The full tonnage, Normal Press speed is available throughout the pre-set stroke length. The convenient setting of the selector switch eliminates the need for repositioning the speed change cam for certain jobs.



## STROKE AND SPEED ADJUSTMENTS ALLOW FAST SET-UPS

Fast set-up is a key to high production. The J-Series' controls for stroke and speed adjustment greatly simplify and shorten the set-up procedure.

Stroke length settings and speed change settings can be adjusted instantly by means of simplified slide-type controls conveniently mounted on the right end of the ram. The micrometer type bottom stroke setting is adjustable to within .001". The top stroke setting is completely adjustable to allow short, high speed operation.

A portable electric footswitch, in conjunction with a mode selector switch, enables the operator to choose between four types of ram control for set-up or for production runs:

### 1. Continuous Run

Depressing the footswitch will move the ram down until the depth limit switch is contacted. The ram will then return automatically to the top of the stroke and continue to "cycle" as long as the footswitch is depressed. Releasing the footswitch at any point in the stroke will allow the ram to reverse and return to the top position and stop until the footswitch is again actuated.

### 2. Single Stroke Control

Ram will operate in the same manner as "Continuous Run", except that ram will stop at the top of the stroke. The ram will not repeat until footswitch is again actuated.

### 3. Jog Control (inching)

Depressing the footswitch will move the ram down, however the ram will hold position when the footswitch is released. This allows "jogging" during the downstroke as an aid when bending to a line, or lay-out work. When the depth limit is reached, the ram will then automatically return to the top position.

### 4. Set-Up Control (inching within .001" increments)

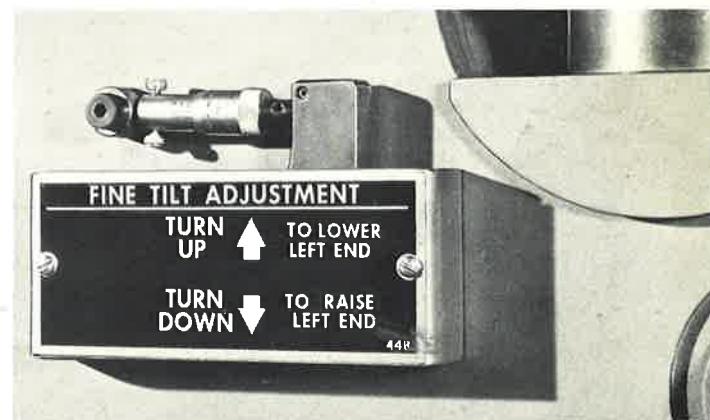
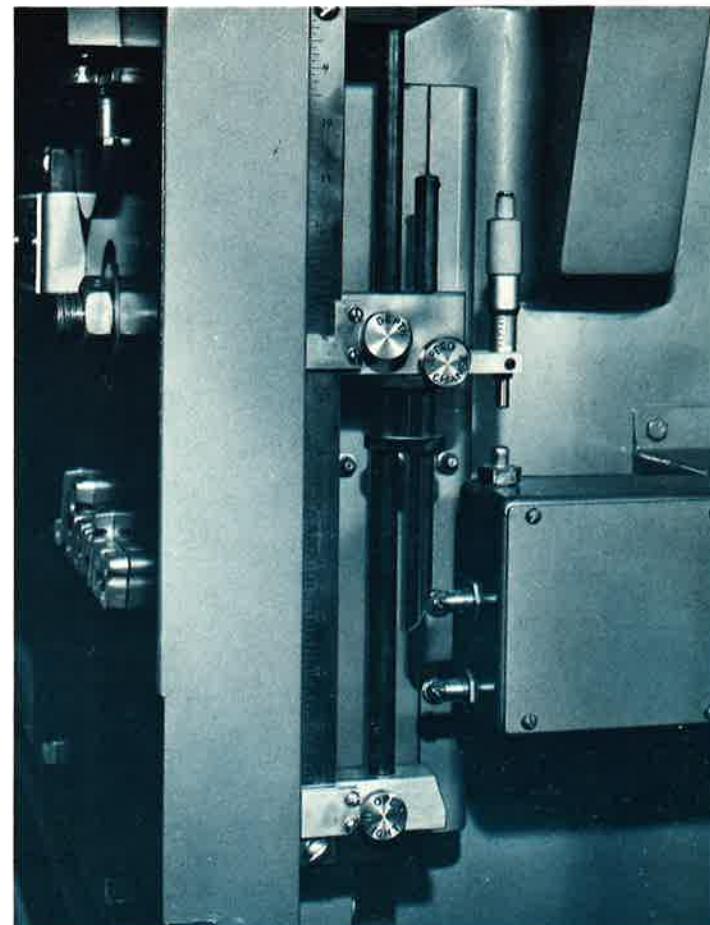
Depressing the footswitch will move the ram down. The ram will hold position when the footswitch is released (similar to Jog Control), except that the ram will stop at the bottom of the stroke and *not* return automatically. Stroke depth adjustments can then be made in very small increments of .001" until the part is bent to the proper angle. This type of control is invaluable in set-up operations.

## AUTOMATIC LEVEL CONTROL (patented)

This simple, foolproof, servo-valve system is responsible for the great repeatability of the J-Series press brakes. It senses and automatically corrects variations in ram level as small as .0001". Unlike competitive level controls, Pacific's system maintains level accuracy when the ram is bottomed as well as when in motion—regardless of where the work is located along the bed of the press.

## NON-OVERLOADING AND NON-JAMMING

Unintentional overloading of the press frame and drive system due to "double sheeting", over-gauge or high tensile material is prevented by the J-Series hydraulic relief valve system. Should the tonnage requirement of the job exceed the press capacity before reaching the bottom of the stroke, the ram will automatically stop and hold position. Upon releasing the footswitch the ram will return to the top of the stroke.



## TILT ADJUSTMENT

Pacific's J-Series Press Brake features a ram tilt adjustment to facilitate fade-out work, and to compensate for die variations. The press may be tilted (without adjusting slide clearances) to a maximum of 1½" in 10 feet of ram length by a simple adjustment in the automatic level control system. Both coarse and fine tilt adjustments may be made for die adjustment and taper work in either direction. A micrometer adjustment with repeat settings to within .001" is conveniently mounted on the front of the ram for fine settings. Once tilted, the level control automatically maintains the desired angle.

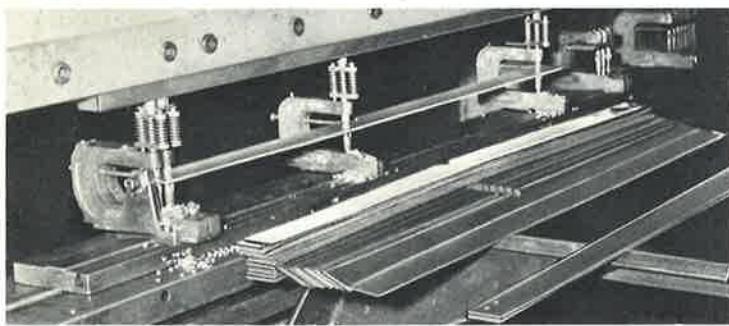
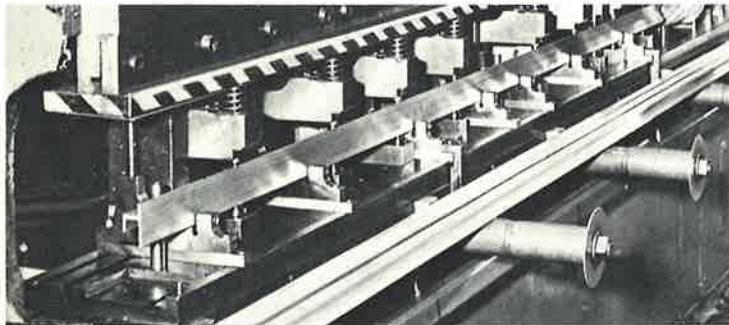
## AUTOMATIC DECOMPRESSION SYSTEM (patented)

The J-Series is equipped with controls that automatically provide for "decompression" of the hydraulic system to reduce the "upstroke" shock when forming certain "resilient" materials. The system provides "controlled power release" when forming with polyurethane dies.

## CUSHIONED PUNCHING

The versatile J-Series press brake is recommended for punching. This hydraulic press brake can perform a multitude of punching jobs safely, rapidly and accurately. The exclusive design of the Pacific hydraulic system cushions the punching operation and gives cleaner holes and increased punch and die life. The large open height and full-power stroke of the J-Series allows the use of a wide variety of self-contained punching units. The long power stroke provides a greater punch "stepping range". When total punching requirements exceeds the punching capacity of the press brake, the stepping of punches may permit the work to be done in one stroke. Heavy plate punching is practical utilizing the long, full power stroke.

For smooth, trouble-free operation the punching capacity should be limited to 70% of the total press capacity. A 30% tonnage allowance should be made to compensate for over-gauge material, higher tensile material, improper punch and die clearance and dull punches and dies.



## SHEET AND PLATE BENDING CAPACITIES

The "bonus-bending capacity" of a J-Series Press Brake can be attributed to its long, adjustable, full power stroke that enables the use of larger dies and heavier material. This provides increased versatility and greater bending capacities than available with similar tonnage mechanicals.

The accompanying chart graphically illustrates the bending capacities for each size J-Series Press Brake.

Maximum bend lengths are based on "air bending" 50,000 to 60,000 psi tensile strength mild steel to a single 90-degree bend.

Bend lengths shown must be reduced if higher tensile material is being formed, or if the variation in material thickness exceeds the value shown. However, the reduction in maximum bend length caused by higher tensile materials as well as the over-thickness tolerance, can be compensated for (if minimum flange width or radius allows) by increasing the female die opening.

## PACIFIC J-SERIES PRESS BRAKES AIR BENDING CAPACITIES

FOR MILD STEEL (55,000 TO 60,000 PSI U.T.S.)

MODEL	SHEET OR PLATE THICKNESS	DIE OPENING	MAXIMUM BEND LENGTH MILD STEEL
J 40	14 Ga. 12 Ga. 10 Ga. 3/16" 1/4"	5/8" 7/8" 1 1/8" 1 1/2" 2"	8' 6' 4'4" 3'4" 2'4"
J 55	10 Ga. 3/16" 1/4" 5/16" 3/8"	1 1/8" 1 1/2" 2" 2 1/2" 3"	6' 4'6" 3'4" 2'6" 2'
J 75	12 Ga. 10 Ga. 3/16" 1/4" 5/16" 3/8" 1/2" 1/2"	7/8" 1 1/8" 1 1/2" 2" 2 1/2" 3" 4" 5"	11' 8'4" 6'4" 4'4" 3'6" 3' 2' 2'9"
J 90	12 Ga. 10 Ga. 3/16" 1/4" 5/16" 3/8" 1/2" 1/2"	7/8" 1 1/8" 1 1/2" 2" 2 1/2" 3" 4" 5"	12' 10' 7'6" 5'6" 4'4" 3'6" 2'6" 3'4"
J 110	10 Ga. 3/16" 1/4" 5/16" 3/8" 1/2" 1/2"	1 1/8" 1 1/2" 2" 2 1/2" 3" 4" 5"	12' 9' 6'9" 5'4" 4'4" 3' 4'
J 135	3/16" 1/4" 5/16" 3/8" 1/2" 1/2"	1 1/2" 2" 2 1/2" 3" 4" 5"	11' 8'4" 6'4" 5'4" 3'9" 5'
J 165	3/16" 1/4" 5/16" 3/8" 1/2" 1/2" 5/8"	1 1/2" 2" 2 1/2" 3" 4" 5" 5"	12' 10' 8' 6'6" 4'9" 6'4" 3'6"

Press Brake length must be equal or greater than the bend length desired.

# standard features

- Three-speed Power Unit including high approach speed and push-button selection of Anti-Whip Speed or Normal Pressing Speed.
- Anti-Whip Speed allows "control" bending with the elimination of reverse bend or "whip".
- Full Tonnage available for the entire stroke in both Normal Press and Anti-Whip speeds allowing greater bending capacities on heavier plate.
- Long, Completely Adjustable Stroke Length with micrometer depth settings to within .001".
- Both Top and Bottom Stroke Settings are fully adjustable to allow high speed operation.
- Operating Controls allow simple ram control selection of:
  1. Continuous Run
  2. Single Stroke
  3. Jog Control (inching),
  4. Set-Up Control (inching with .001" increments)
- Portable Electric Footswitch to start and control ram movement (may be hand held).
- Rigid, extra long, non-binding, Ram Guide System. Allows intentional ram tilt.
- Pre-Loaded Ram Connection (patented) eliminates use of shims and provides greater press accuracy.
- Heavy Cast Cylinders with externally adjusted rod packing. Pre-loaded wedge type key mounting prevents cylinder movement.
- Self-Contained Power Unit complete with pump and motor mounted between side housings to provide maximum work area.
- Automatic and Fully Hydraulic Level Control System. (patented) provides extreme repeat and level accuracy of ram.
- Micrometer Fine Tilt Adjustment with settings within .001". Coarse and fine settings allow maximum ram tilt of 1½" in 10 feet.
- Automatic Decompression System (patented) eliminates shock on upstroke when forming with polyurethane dies.
- Automatic Ram Counter-Balance System to prevent ram dropping when power is off.
- Full Flow 10 Micron Oil Filter System allowing "throw-away" element to be replaced conveniently from top of tank.
- Right Hand Controls.
- One Set of Universal Gauges with micrometer type adjustments.

# optional features and accessories

For added versatility, performance and convenience—and to boost production efficiency—the following optional features and accessories are available for use on Pacific J-Series Press Brakes:

## MOTOR STARTER

Motor starter, control transformer, and main circuit breaker mounted in a single NEMA 1 control box on the right hand housing.

## ADDITIONAL SHUT HEIGHT

Increased shut height is available in 3" increments.

## FLUSH FLOOR BED DESIGN

Models J135-12, J165-10, J165-12 can be modified to a flush mounted bed.

## VARIABLE ANTI-WHIP SPEED

## TONNAGE CONTROL AND INDICATOR

Allows the operator to "pre-set" the tonnage of the press from maximum to within 20% of capacity.

## TURRET DEPTH STOP

Furnished in either 4-station or 6-station assemblies. Allows the progressive forming of bends having different angles.

## FRONT OPERATED BACK GAUGE

## CENTRALIZED ONE-SHOT GREASE LUBRICATION

## DIES

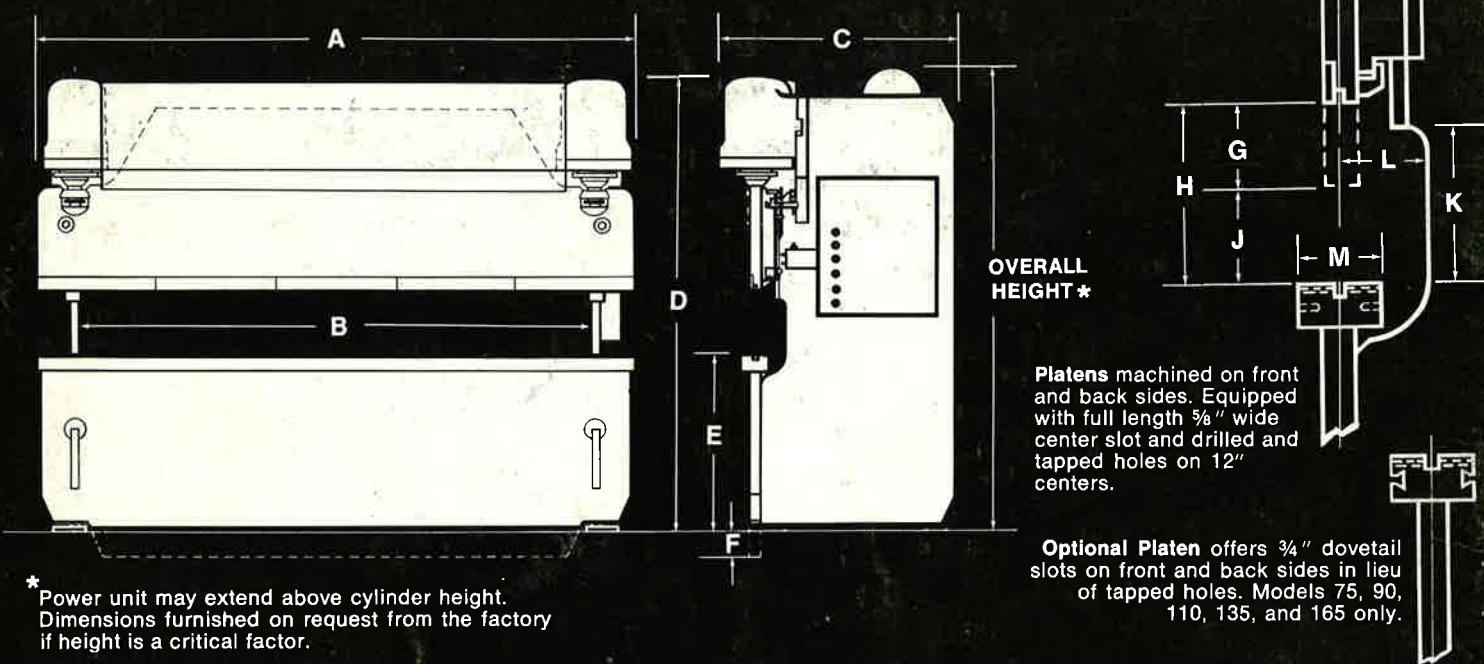
A full line of thru-hardened steel dies, especially formulated for use on Pacific Presses are immediately available to implement your machine in performing almost all applications.

## DIE INDEXER

Allows operator to easier and quickly locate and reposition 4-way die without use of forklift or ram of press with lifting links.



## Specifications & Dimensions



MODEL	Length Bed and Ram	Distance Between Housings	Width	Cylinder Top Height Above Floor	Platen Height Above Floor	Bed Projection Below Floor	Stroke Length	Open Height	Closed Height	Throat Height	Throat Depth	Platen Width	Motor Horsepower	Approx. Shipping Weight Pounds
	A	B	C	D	E	F	G	H	J	K	L	M		
J40-6	6'0"	4'6 $\frac{3}{4}$ "	3'2"	6'8"	32"	—	6"	12"	6"	11"	6"	4"	8 $\frac{3}{4}$	6,000
J40-8	8'0"	6'6 $\frac{3}{4}$ "	3'2"	6'8"	32"	—	6"	12"	6"	11"	6"	4"	8 $\frac{3}{4}$	7,000
J40-10	10'0"	8'6 $\frac{3}{4}$ "	3'2"	6'8"	32"	—	6"	12"	6"	11"	6"	4"	8 $\frac{3}{4}$	8,500
J55-6	6'0"	4'6 $\frac{3}{4}$ "	3'4"	6'9"	32"	—	6"	12"	6"	11"	6"	4"	12 $\frac{1}{2}$	6,500
J55-8	8'0"	6'6 $\frac{3}{4}$ "	3'4"	6'9"	32"	—	6"	12"	6"	11"	6"	4"	12 $\frac{1}{2}$	7,800
J55-10	10'0"	8'6 $\frac{3}{4}$ "	3'4"	6'9"	32"	—	6"	12"	6"	11"	6"	4"	12 $\frac{1}{2}$	9,500
J75-8	8'0"	6'6 $\frac{1}{2}$ "	3'7"	7'4"	32"	—	7"	13"	6"	11"	6"	6"	15	9,000
J75-10	10'0"	8'6 $\frac{1}{2}$ "	3'7"	7'4"	32"	—	7"	13"	6"	11"	6"	6"	15	11,000
J75-12	12'0"	10'6 $\frac{1}{2}$ "	3'7"	7'4"	32"	—	7"	13"	6"	11"	6"	6"	15	14,000
J90-8	8'0"	6'6 $\frac{1}{2}$ "	4'0"	7'6"	34"	—	7"	13"	6"	11"	6"	6"	15	9,800
J90-10	10'0"	8'6 $\frac{1}{2}$ "	4'0"	7'6"	34"	—	7"	13"	6"	11"	6"	6"	15	12,000
J90-12	12'0"	10'6 $\frac{1}{2}$ "	4'0"	7'6"	34"	—	7"	13"	6"	11"	6"	6"	15	15,000
J110-8	8'0"	6'6 "	4'0"	8'1"	35"	—	8"	13"	5"	11"	6"	8"	20	11,200
J110-10	10'0"	8'6 "	4'0"	8'1"	35"	—	8"	13"	5"	11"	6"	8"	20	13,500
J110-12	12'0"	10'6 "	4'0"	8'1"	35"	—	8"	13"	5"	11"	6"	8"	20	16,500
J135-8	8'0"	6'6 "	4'5"	8'2"	35"	—	8"	13"	5"	11"	7"	8"	25	12,700
J135-10	10'0"	8'6 "	4'5"	8'2"	35"	—	8"	13"	5"	11"	7"	8"	25	15,000
J135-12	12'0"	10'6 "	4'5"	8'2"	35"	9"	8"	13"	5"	11"	7"	8"	25	17,800
J165-8	8'0"	6'6 "	4'10"	8'9"	36"	—	10"	15"	5"	11"	7"	8"	30	19,000
J165-10	10'0"	8'6 "	4'10"	8'9"	36"	5"	10"	15"	5"	11"	7"	8"	30	21,500
J165-12	12'0"	10'6 "	4'10"	8'9"	36"	11"	10"	15"	5"	11"	7"	8"	30	24,000

Write for further information on any Pacific machine

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