

All Greenerd Presses are designed and built to ANSI B-11.2 1995 (R-2000) compliance.

4-POST HYDRAULIC DEEP DRAW PRESS

- Model Number 4D-562-36 x 36-48/48/33/45
- Force of Main Ram Adjustable 112 to 562 tons
- Work Area: Left to Right between posts36”
- Work Area: Front to Back overall36”
- Overall width, left to right 116”
- Overall height above Floor Approximately 234”
- Overall Depth below Floor Approximately 44”
- Column diameter.....8”
- Clearance between columns front to back 14”
- Daylight = Maximum Open Distance63”
 Note: “Shut Height” = Daylight Less Maximum Stroke
- Stroke Adjustable to maximum 40”
- Cylinder Bore Diameter20”
- Ram Diameter 10”
- Bed to floor height33”
- Motor Capacities (Three Motors Provided)..... 2 x 100 HP, 1 x 75 HP, 1800 RPM
- Amperage Draw when Idling..... 93 Amps
- Amperage Draw at full tonnage on all cylinders 34 Amps
- Electrical Service Required..... 600 Amp service fused at 450 Amps
- Pump capacities (Four Pumps Provided).....48, 48, 33, 45 GPM
- Hydraulic System..... Jack Cylinder Controlled Prefill
- Main Reservoir Capacity 415 Gallons
- Prefill Tank Capacity 200 Gallons
- Maximum System Pressure..... 3690 PSI
- Ram Speed: Close, inches per minute in run (or auto) mode912
 Press, inches per minute in run (or auto) mode95
 Open, inches per minute in run (or auto) mode877

Cushion Specifications:

- Cushion Force Adjustable 28 to 280 Tons
- Ejection Force 20 Tons max
- Stroke Adjustable to maximum 16"
- Cylinder Bore Diameter 14"
- Ram Diameter 10"
- Pin Pad Overall: 24" L-R x 20" F-B
- Maximum System Pressure..... 3637 PSI

Ram Mounted Knockout Specifications:

- Knockout Force..... Adjustable 6 to 30 Tons
- Stroke Adjustable to maximum 16"
- Cylinder Bore Diameter 5.0"
- Ram Diameter 3.5"
- Maximum System Pressure..... 3055 PSI

INCLUDED EQUIPMENT

- **Distance Reversal** to set depth of ram stroke for automatic return up.
- **Pressure Reversal** to set pressure at which ram returns up automatically.
- **Pre-Slow Down Circuit** to set height for changeover from rapid advance speed to pressing speed.
- **Water-Cooled Heat Exchanger:** Water-cooled hydraulic oil cooler to maintain hydraulic oil at optimum operation temperature (about 120°F). For use under conditions of continuous high production, pressure dwells, and/or high ambient temperatures. Temperature Control Valve included to economize on water.
- **10" Allen-Bradley Panelview Plus Electronic Press Control:** A powerful, compact control for digital control over press functions. Simple, user-friendly system, with keypad or touch screen entry of control functions and set-up parameters. Closed Loop Pressure Control compensates for temperature variation and allows repeatable accuracy of $\pm 5\%$. Option includes the operator interface and enclosure, fixed pendant mounting to the head of the press, linear transducer, pressure transducer, extra PLC capacity, and an electronic relief valve.

With the base electronic press control you can:

- Set Digital Top Stop, Slow Down, and Bottom Stop stroke positions for Main Ram. Also able to set pressure and distances for Cushion and Ram Mounted Knockout.
 - Set Digital Pressure (Tonnage) set points.
 - Counters: non resettable press stroke counter, resettable stroke counter and batch counter
 - Dwell timer, allows adjustable pressure dwells up to 10 seconds.
 - Trend display for Tonnage and Reversal Position; view the last ten (10) cycles.
 - Cycle rate displayed in cycles per minute.
 - Recipe storage. **Stores set-ups for up to 150 recipes on board.** Speeds press setup.
 - Diagnostic capability. All PLC I/O points can be monitored on the screen.
- **Bar Code Reader: Keyence LED Type Handheld Scanner, Bar Code Interface and DC Input Card.** Bar code labels to have black lines on clean white background. Bar Code Reader will allow the operator to scan the individual Bar Code on any particular tool or Router Card to determine the proper program to be called up to the Touchscreen.
 - **Vibro Dynamics Micro Level Isolators:** Model No. 16M1500-1.25M8.
 - **Light Curtain Front and Rear with Mirrors:** An electronic barrier mounted at the front and Rear of the press attached to mirrors on both sides of the press frame. This style of guarding allows operator access to all four sides of the work area.

VOLTAGE

- **460 Volt Operation:** Press will operate at 460V, 3Phase, 60 Hertz line voltage.
 Price..... **Included**

PRODUCTION ESTIMATES:

Production rates or cycle times are based on application information known to us at the time of this quote. Since actual production conditions vary considerably, these are best estimates and are not warranted. Estimate does not include material handling time.

Rapid Advance	Close	8.00	X	60	÷	912	IPM	=	0.526	Sec.
Press	Press	4.00	X	60	÷	95	IPM	=	2.526	Sec.
Rapid Open	Open	12.0	X	60	÷	877	IPM	=	0.821	Sec.
Valve Shift Time								=	1.500	Sec.
Total Cycle Time at 100% Efficiency								=	5.374	Sec.
Total Useable Cycle Time at 95% Efficiency								=	5.642	Sec.
Cycles Per Minute						60	÷		5.642	= 10.63
Cycles Per Hour						60	X		10.63	= 638

To see photos of this press please continue to scroll down:

PHOTOS OF THE PRESS



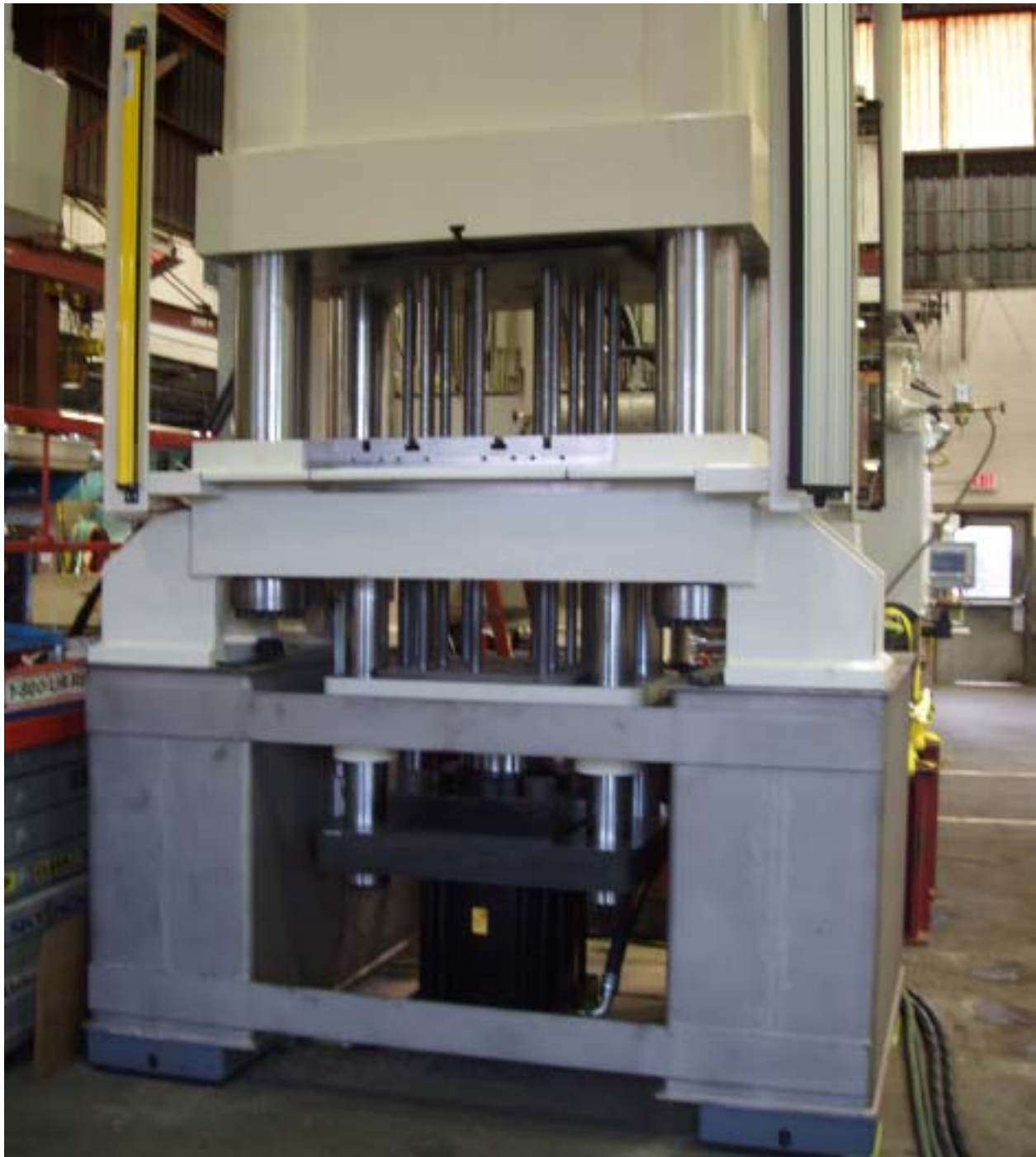
The above press will be located within a Pit. The Grey Steel base that is shown along with the buildup of supports underneath the Power Unit were required to mimic the customers Pit.



View from the rear of the press showing the Three Motor/Pump Groups. Power Unit capacity was 415 gallons.



Side view of press showing 10" Allen-Bradley Panel View Plus Touchscreen Control with Keyence Bar Code Scanner attachment.



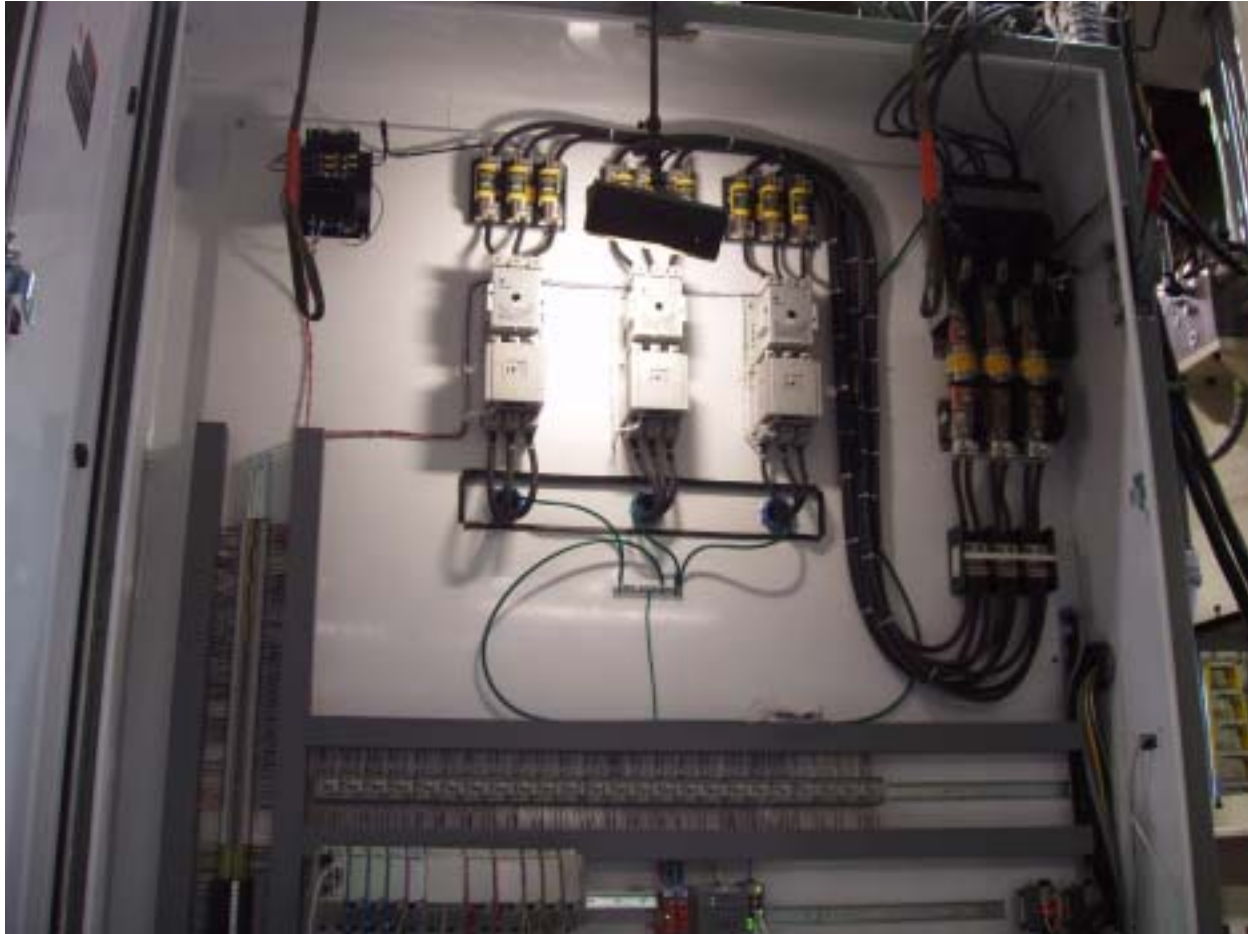
Cushion assembly underneath Bed of press. Grey steel fixture is to mimic customers pit depth.



Overhead view of Main Power Unit.



Main Cylinder designed and built by Greenerd Press & Machine Co., Inc. Photo also shows Prefill tank mounted off Top Cap of the Cylinder for providing oil flow during Rapid Down Stroke. Prefill valve with flexible coupling shown on side of Main Cylinder.



Electrical Control Cabinet: Press was built using Allen-Bradley components. Programmable Logic Controller was a Compact Logix. All cylinders provided with Linear and Pressure Transducers for setting depth control and pressure control from the Touchscreen. Main Ram depth control with Ramping feature allows for +/- 0.001" Depth control for draw function.



Rear view of press showing Manifolds for 30-ton capacity Main Ram Mounted Knockout Cylinder and Jack Cylinder control Manifold.