STAMTEC®

METAL STAMPING & FORMING EQUIPMENT

S2 Straight Side Mechanical Presses

110 . 165 . 220 . 330 . 440 . 660 . 880 - 3300 tons

S2 SERIES

Straight Side Mechanical Presses

Durable | **Reliable** | **Versatile**

The Stamtec S2 two-point straight side press (a.k.a. double crank press) is designed for stamping large parts or ones that require a large bed area to accommodate progressive or transfer dies. Oftentimes, these types of operations require high tonnage, high flywheel energy, maximum frame or bed rigidity, or some combination thereof. The path of the slide is guided by eight full-length, ninety-degree gibs with nickel-bronze wear plates, offering maximum control, a high degree of accuracy and ease of adjustment.

TONNAGE RANGE: 110 - 3300

Stamtec mechanical presses can be customized to meet a wider range of SPM, stroke, rating point (BDC), bed and other specifications and dimensions.

www.stamtec.com/s2-series-2-point-straight-side-press

STANDARD Features

- Wet clutch and brake
- Flywheel brake
- Hydraulic overload system
- Air counterbalance system
- Automatic lubrication system
- Digital die height indicator
- T-slotted slide plate and bolster
- Motorized slide adjustment
- OmniLink 5100-APC press controls

[see page 7]

OPTIONAL Features

- Link motion drive technology
- Press controls from Wintriss, Link, Helm (Allen-Bradley), Toledo (Allen-Bradley), Siemens, Mitsubishi, etc.
- Anti-vibration press leveling mounts
- Safety light curtains
- Tonnage monitor
- Quick die-change system
- Die cushion
- Knockout bar
- Compact servo feed line

Call: 931-393-5050 | Visit: www.stamtec.com | Email: stamtecpresses@stamtec.com

S2 SERIES PRESS SPECIFICATIONS

MODEL		S2-110	S2-165	S2-220	S2-330	S2-440	S2-660	S2-880 S2-3300
Capacity	US Tons	Quoted Upon Request	165	220	330	440	660	Quoted Upon Request
	Metric Tons		150	200	300	400	600	
Speed	SPM		60 ~ 120	50 ~ 120	30 ~ 60	25 ~ 50	25 ~ 45	
Rated Tonnage Point @ BDC	in.		0.236	0.236	0.275	0.275	0.512	
	mm		6	6	7	7	13	
Stroke Length	in.		5.91	6.30	10.04	12.01	13.98	
	mm		150	160	255	305	355	
Die Height Bolster to Slide (SDAU)	in.		15.75	19.70	25.98	30.00	33.98	
	mm		400	500	660	762	863	
Slide Adjustment	in.		5.91	6.3	8.27	9.84	10.00	
	mm		150	160	210	250	254	
Slide Area (L - R x F - B)	in.		60 x 42	72 x 48	96 x 50	120 x 55	144 x 60	
	mm		1524 x 1066	1828 x 1219	2440 x 1270	3084 x 1397	3660 x 1525	
Bolster Area (L - R x F - B)	in.		60 x 42	72 x 48	96 x 50	120 x 55	144 x 60	
	mm		1524 x 1066	1828 x 1219	2440 x 1270	3048 x 1397	3660 x 1525	
Bolster Thickness	in.		5.91	6.29	7.09	7.87	7.87	
	mm		150	160	180	200	200	
Working Height (Floor to top of Bolster)	in.		36.97	39.37	39.37	37.40	39.37	
	mm		939	1000	1000	950	1000	
Opening in Side Frames (F - B x H)	in.		25 x 17.70	31.50 x 19.70	39.37 x 27.56	47.24 x 31.50	50 x 31.50	
	mm		635 x 450	800 x 500	1000 x 700	1200 x 800	1270 x 800	

ROBUST DRIVETRAIN SYSTEMS

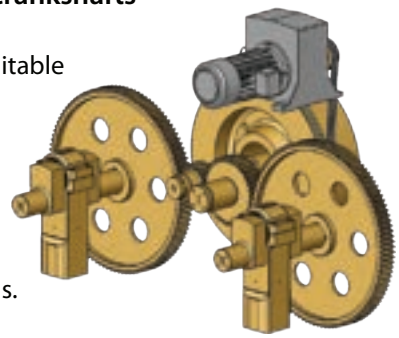
The gears on Stamtec presses are hardened and precision ground for quiet, vibration-free performance and long life. Pinions are typically machined to alloy shaft forgings to eliminate the keyed joint which requires a larger than otherwise necessary shaft diameter. Crankshafts are machined and precision ground from high carbon steel forgings, and normalized to eliminate harmful stress concentrations. Main and crankshaft bearing surfaces are manufactured from alloys chosen based on the specific application. Flywheel, driveshaft and intermediate shafts run in anti-friction or spherical roller bearings. All materials are selected to provide superior strength, performance, and wear resistance characteristics.

DRIVE ARRANGEMENTS TO MEET DIVERSIFIED STAMPING NEEDS

Stamtec presses employ a variety of drive arrangements depending on application requirements including type of work (blanking, drawing, forming), type and size of dies, parts material specifications, production volumes required, etc.

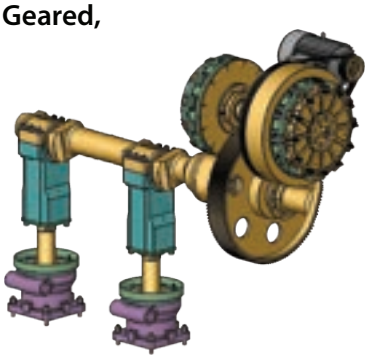
Single-Geared, Opposed, Counter-Rotating, Crankshafts

This arrangement is suitable for smaller tonnage presses with slide areas that are relatively long L-R vs. F-B, and capacities typically not exceeding 500 tons.



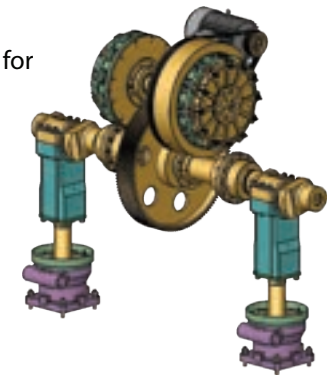
Single-Geared or Double Geared, Single-End Drive

This arrangement is suitable for blanking, forming and medium depth drawing on presses with relatively small L-R dimensions of slide, typically lower than 300 tons capacity.



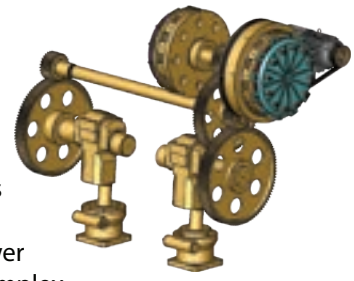
Single-Geared or Doubled-Geared, Center Drive

This arrangement is suitable for heavy blanking, forming and medium depth drawing at higher speeds on presses with larger L-R dimensions of slide. Press tonnage would usually be from200 tons up to 600 tons.



Single-Geared or Double Geared, Twin-End Drive

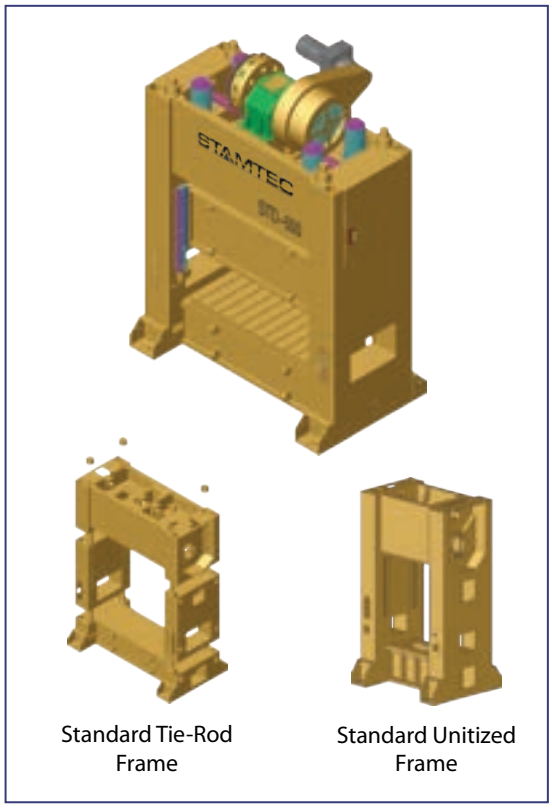
This arrangement may be necessary for heavier duty stamping on presses when larger L-R dimension of slide, longer strokes, and higher tonnage rating points are required. These types of drive systems run at the slower speeds often required for complex forming and drawing operations. Press capacity can be up to 3000 tons.



Call: 931-393-5050 | Visit: www.stamtec.com | Email: stamtecpresses@stamtec.com

RUGGED PRESS FRAMES

Stamtec rugged press frames are rigid, box type fabricated steel structures put through rigorous FEA (Finite Element Analysis) prior to manufacturing, and are designed for exceptional strength to properly resist deflection, torsion and vibration. This rigidity assures continued alignment of components even under heavy load, provides greater stamping accuracy, and helps extend die life. Tie rod construction is most often employed to permit disassembly and reassembly. In smaller presses the frame components are welded together instead of tie-rod constructed, to form a single-piece unitized frame. Large window openings are provided to permit coil or transfer feeding across most or all of front to back dimension of the bed. The massive bed is built to a standard of no more than .0015" deflection per foot of bed length left to right and front to back, with a full-capacity load symmetrically distributed over 2/3 of the bed area. By providing superior compressive strength, and maximum resistance to deflection, torsion, and vibration, Stamtec's press frame helps you produce precision stampings with minimum die wear.

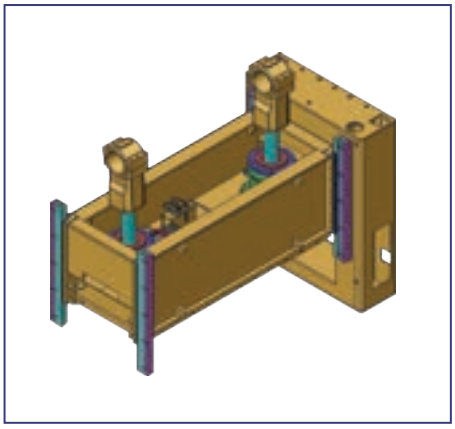


Standard Tie-Rod Frame

Standard Unitized Frame

BOX-TYPE SLIDE

The Stamtec slide is a rigid, box type structure, fully thermal stress relieved, and built to a standard of no more than .0015" deflection per foot with the load symmetrically distributed over 2/3 of the slide area. The slide is guided by exceptionally long eight point gibbing for maximum control and accuracy. The adjustable gib-liners are of a nickel bronze alloy, ground for smooth finish and accurate fit. The ways are finished ground or machined for precision alignment to ensure greater parts accuracy and longer die life. The slide is counterbalanced by one or two air cylinders, as required by the slide size. These are adjustable, air pressure cylinders, and can be set to properly compensate for the weight of the upper die. Stamtec's slide design and construction provides maximum strength to resist deflection and torsion.



EIGHT POINT FOUR WAY GIBS

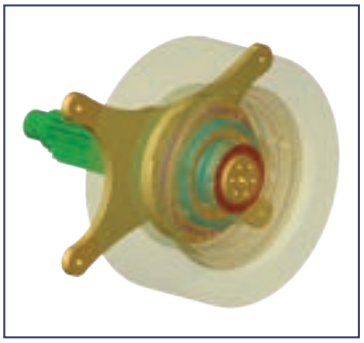
Stamtec's precise 8-point gibbing provides accurate guiding of the slide throughout the stroke. Extra long gibs keep the slide fully contained at all points of stroke and slide adjustment. This feature, in conjunction with the rigid box type slide, results in maintaining parallelism to the bed. Simple gib adjustment mechanisms allow for quick and easy alignment and setting of clearances.

CLUTCH AND BRAKE

Many clutch and brake options are available, and are selected based on the application and budget:

- independent air friction clutch and brake
- combination air friction clutch and brake
- hydraulic clutch and brake
- wet clutch and brake

All units are designed to operate in a fail-safe mode. Should either electric or air supply fail, the clutch will disengage and the brake will engage.



MAIN MOTOR DRIVES

Stamtec straight side presses are equipped with A/C variable frequency drive to permit adjusting the press speed infinitely within its range for optimum tuning of the die, material, feed length, automation, and parts removal.

HYDRAULIC OVERLOAD SYSTEM

Highly responsive with an immediate oil dump feature and a unique dual-valve pressure switch arrangement, Stamtec's fast-acting H.O.L.P. relieves the pressure of a tonnage overload in milliseconds, and helps protect both press and tooling. If an overload occurs,even on just one side of the press, oil pressure in the cylinder is released and simultaneously, the press stops. This reliable system can be quickly and easily reset by inching the slide back to top dead center, which automatically reactivates the pump, builds up the hydraulic pressure to the pre-overload setting, and resets the press control to allow resumption of normal operation.

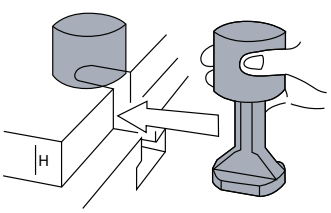
Standard Overload Protector

RECIRCULATING OIL LUBRICATION SYSTEM

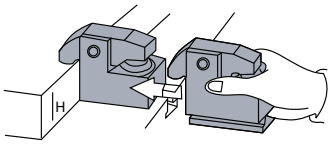
All anti-friction bearings, sleeve bushings and gibs are lubricated by a sequencing self-monitoring re-circulating oil lubrication system which is interlocked with the press emergency stop circuit. Low oil level, loss of oil flow or pressure, or excessive oil flow or pressure at any of the monitoring points, causes the press to stop, and a fault message is recorded and displayed on the operator interface for easy troubleshooting. Drivetrain lubrication is provided by an oil bath and spray system.

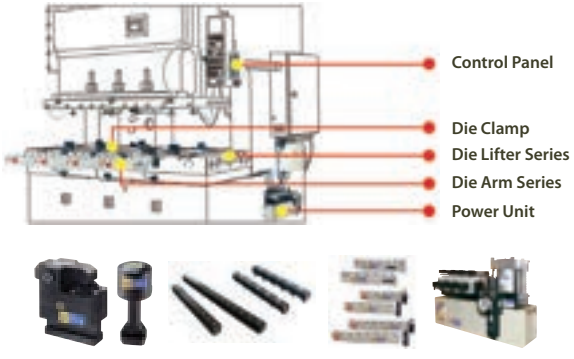
QUICK DIE CHANGE SYSTEM (Q.D.C.)

Die Clamp TX-type
With "U" Cut in die set



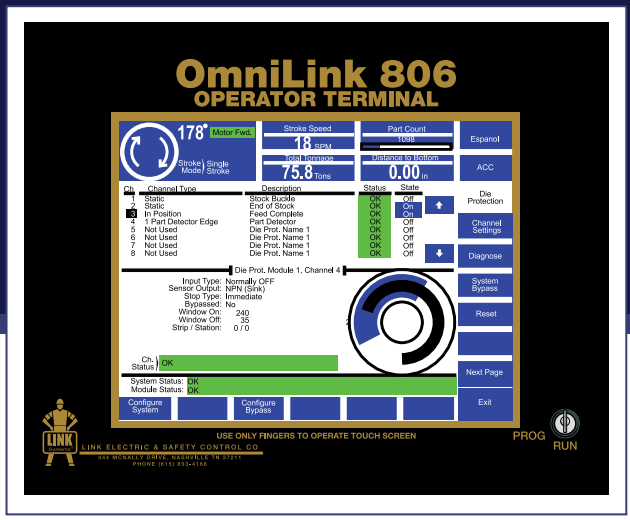
Die Clamp TY-type
Die plate thickness, H, to be specified





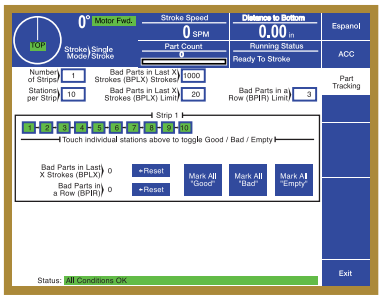
Press Controls

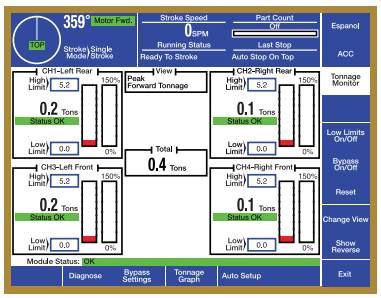
OmniLink 5100-APC (standard equipment)



Model 806, 10.4" Color touch screen displays all system information in English or Spanish and provides easy settings and selections for control configuration, PLS, die protection, counters, etc.

1000 Job storage and recall to provide quick, consistent set-ups.

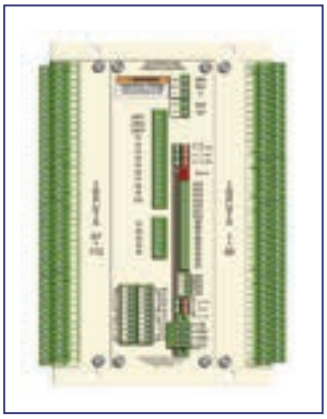




Eight (8) Die Protection/Process Monitoring inputs (up to 80 available optionally) located in the Operator Terminal. Nine monitoring modes are available for each die protection input.

Eight (8), programmable limit switch outputs (up to 96 available optionally) are available to sequence and time automation with the press.

56 control inputs and 8 sets of dual-tracking safety control inputs (many of which are configurable) for superb performance and diagnostics with 56 additional inputs available.



Outputs for clutch and brake, as well as optional output relays configurable for specific functions related to lube systems, motor controls, hydraulic overloads, flywheel brakes, automation, etc.

Screens to display the state of every input and output, lube system diagnostics, OIT diagnostics, configuration memory, and an event log with date, time and reason for the last 256 stops.

Stopping Time Performance (Brake) Monitor, Motion Detection, Clutch Engagement Time Monitor.

Stroking Modes- Off, Inch, Automatic Timed Inch, Setup/StopTime Test, Single Stroke (Cycle), and Continuous. (Optional modes- ,Automatic Single Stroke (Cycle), Maintained Continuous, and Continuous on Demand) (ALL STANDARD).

Automatic Top Stop Compensation for use with variable speed presses.

Four (4) nine-digit counters for Stroke, Parts, Batch, and Quality.

Superior safety with powerful diversely redundant cross-checked dual micro-processor logic systems.

Lasting value with rugged modular design and Link technical support.

OPTIONAL Press Controls

from manufacturers including:

WINTRISS

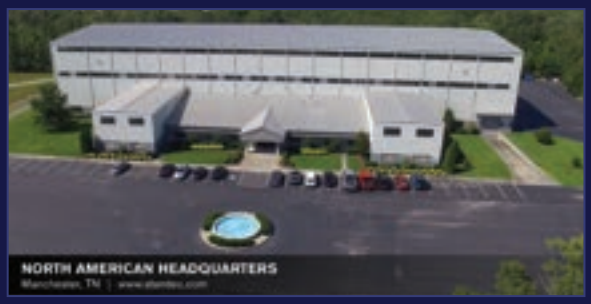
SIEMENS

MITSUBISHI ELECTRIC

LINK Systems

Rockwell Automation

Allen-Bradley



As one of the largest press builders in the world, Stamtec has been providing dependable, high-performance metal stamping presses for more than 40 years in North America and 70 years worldwide. We also provide fully integrated press production systems including servo coil-feeding lines, transfer systems, quick die change systems, etc. Our 72,000 sq. ft. sales, service, logistics, and assembly facility in Tennessee is home not only to North America's largest inventory of new presses and spare parts, but also our most important asset - our people. Our staff of engineering, sales, service, and support personnel are here to serve you in the most timely and professional manner. Please contact us any time for a free professional consultation about your press production needs. We'd welcome the opportunity to help you!

Gap Frame Presses

Straight Side Presses

Servo Presses

Forging Presses

Coil Feeding & Handling Systems

STAMTEC®

METAL STAMPING & FORMING EQUIPMENT

STAMTEC, INC.
4160 Hillsboro Highway
Manchester, TN 37355 U.S.A.
TEL: +1-931-393-5050
FAX: +1-931-393-5060
stamtecpresses@stamtec.com
www.stamtec.com

STAMTEC EQUIPOS de ESTAMPACIÓN
Cerrada la Noria No. 200 Int. B-10, Querglétaro Park II,
Parque Industrial Querétaro,
Santa Rosa Jáuregui, Querétaro, CP. 76220
TEL: +52-442-101-9555
ventas@stamtec.com
www.stamtec.com/es