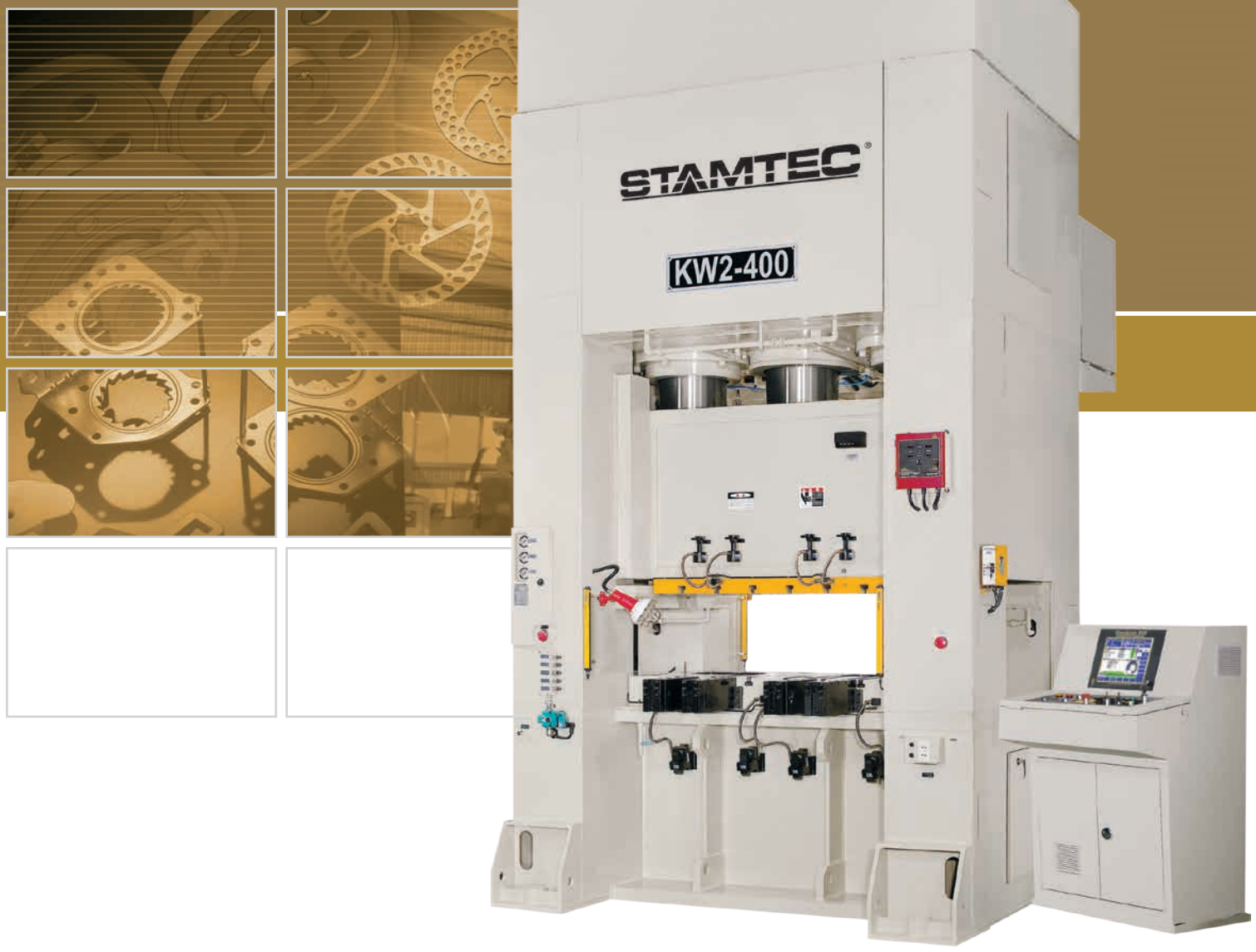
STAMTEC®

METAL STAMPING & FORMING EQUIPMENT

KW1 & KW2 Series

High Precision

Knuckle-Joint Presses



250 . 400 . 650 . 850 . 1000 . 1200 . 2000 ton

KW1 Series

Cold & Semi-Hot Forging Knuckle-Joint Presses

KW1 - 500 Series

Stamtec KW1 Series Cold and Semi-Hot Forging Knuckle-Joint Presses, especially when coupled with feeder and transfer equipment, is effective an efficient in forging and drawing thick sheet material.

Wet clutch delivers high torque and performance at relatively low air pressure. Friction linings run in an enclosed oil bath, providing a very long lived clutch and brake with efficient heat dissipation, low vibration, minimal noise, reduced lining wear, and lower air consumption, even at high single-stroke rates of production.

Tonnage Range: 300 - 1000

Ideal for producing metal covers, stamping and drawing for 3C products (ex. laptop case and hardware).

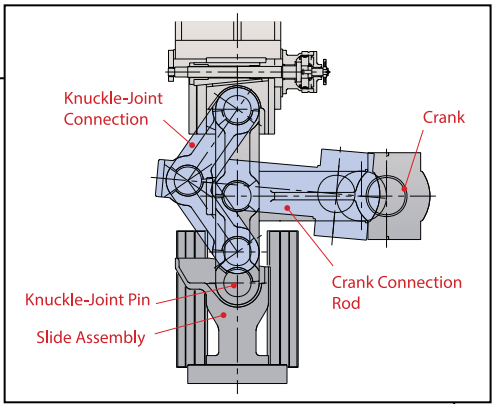
Good for thick steel plate stamping, bending and drawing in motor vehicle components (ex. gear stamping).

Large bed dimensions, combined with an integrated feed system are well-suited for automotive production.

Knuckle-Joint Drive System

Designed for the "net-shape" blanking and coining of thicker materials.

The system features a low inertia design with the gears running in an oil bath and spray system. For superior strength, durability, accuracy, and consistency, gears are manufactured in our own facilities to the highest manufacturing standards, using high quality steels. The gear teeth are finished ground and hardened to provide close running tolerances, prolonged life, and a smooth quiet operation. The crankshaft is forged from high-carbon steel; precision machined, and the bearings surfaces are smooth ground. The crankshaft main bearings and pitman bushings are custom machined from bronze alloy.

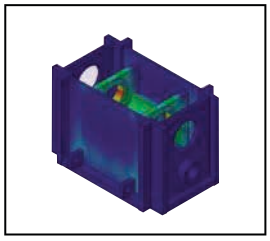
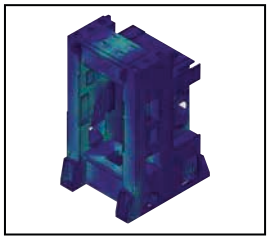
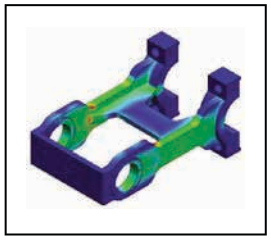
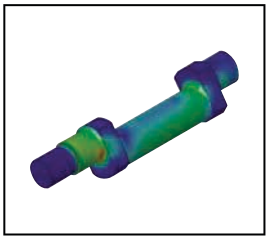


KW1 Specifications

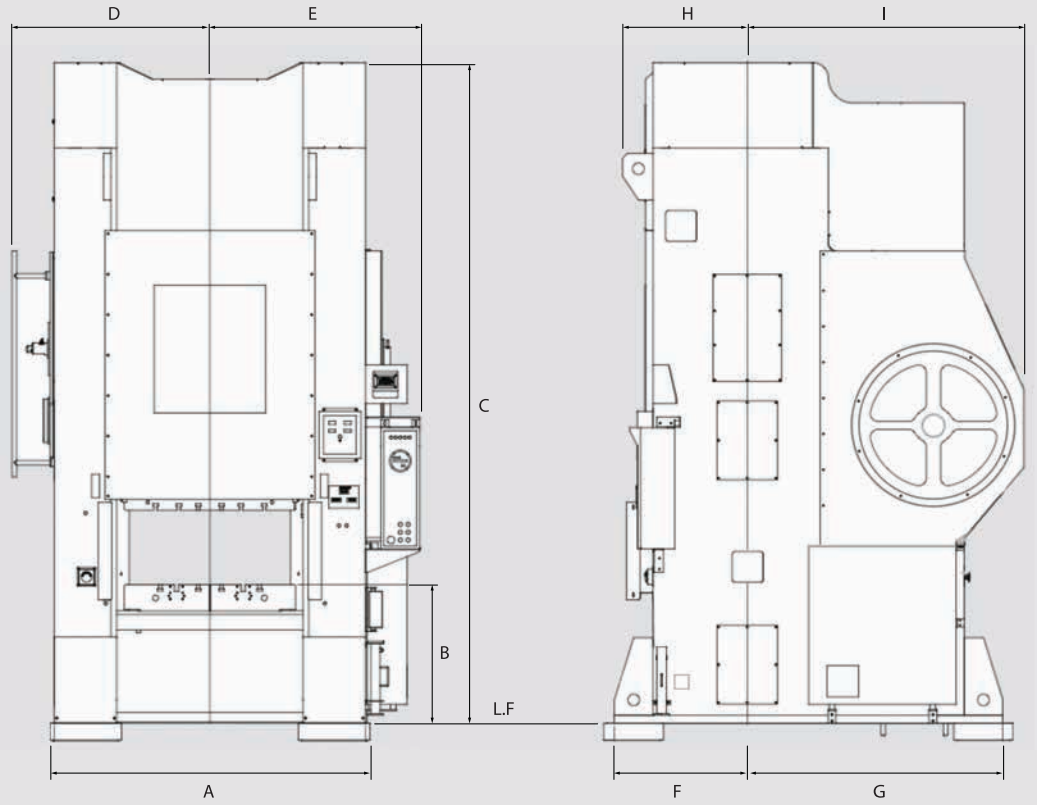
		KW1-300	KW1-400	KW1-500	KW1-650	KW1-800	KW1-1000
Capacity	US Tons	330.69	440.93	551.16	716.50	881.85	1102.31
	Metric Tons	300	400	500	650	800	1000
Rated tonnage point	in.	0.32	0.32	0.32	0.32	0.32	0.32
	mm	8	8	8	8	8	8
Stroke length	in.	4.72	4.72	5.91	5.91	9.84	7.87 (9.84)
	mm	120	120	150	150	250	200 (250)
Speed	SPM	20 ~ 40 (20 ~ 45)	20 ~ 40 (20 ~ 45)	20 ~ 40	20 ~ 40	20 ~ 35	20 ~ 40 (20 ~ 35)
Slide adjustment	in.	0.59	0.59	0.59	0.59	0.59	0.59
	mm	15	15	15	15	15	15
Die height	in.	17.72	17.72	17.72	17.72	17.72	17.72
	mm	450	450	450	450	650	650
Bolster area	in.	43.31 x 37.40	43.31 x 37.40	49.21 x 39.37	59.06 x 39.37	59.06 x 39.37	62.99 x 39.37
	mm	1100 x 950	1100 x 950	1250 x 1000	1500 x 1000	1500 x 1000	1600 x 1000
Bolster thickness	in.	7.09	7.09	8.66	8.66	9.84	9.84
	mm	180	180	220	220	250	250
Slide area	in.	43.31 x 33.47	43.31 x 33.47	49.21 x 39.37	59.06 x 39.37	59.06 x 39.37	62.99 x 39.37
	mm	1100 x 850	1100 x 850	1250 x 1000	1500 x 1000	1500 x 1000	1600 x 1000
Working height	in.	35.43	35.43	46.65	49.80	51.18	22.21
	mm	900	900	1185	1265	1300	564
Slide opening	in.	23.62 x 22.44	23.62 x 22.44	23.62 x 22.44	23.62 x 22.44	23.62 x 30.32	23.62 x 27.56
	mm	600 x 570	600 x 570	600 x 570	600 x 570	600 x 770	600 x 700
Max. upper die weight	lbs.	2204.62	2204.62	3306.93	3858.09	3858.09	3858.09
	kg	1000	1000	1500	1750	1750	1750
Main motor	HP x P	V.S. 30 x 4	V.S. 30 x 4	V.S. 50 x 4	V.S. 60 x 4	V.S. 75 x 4	V.S. 100 x 4

Rigid Design

High rigidity design offers a deformation / deflection rate of less than .0012 per foot. FEM (Finite Element Method) is used in product design to provide quality and accuracy in all key components (ex. frame, crank, link, slide, etc.), and to ensure the integrity of the final product.

KW1 Outline Dimensions



MODEL		KW1-300	KW1-400	KW1-500	KW1-650	KW1-800	KW1-1000
A	in.	78.74	82.68	86.61	100.20	107.28	123.03
	mm	2000	2100	2200	2545	2725	3125
B	in.	35.43	35.43	46.65	49.80	51.18	56.06
	mm	900	900	1185	1265	1300	1424
C	in.	167.13	167.13	210.32	218.70	238.19	265.35
	mm	4245	4245	5342	5555	6050	6740
D	in.	50.20	50.20	54.13	61.02	64.57	71.06
	mm	1275	1275	1375	1550	1640	1805
E	in.	53.15	55.12	57.09	63.86	67.52	82.68
	mm	1350	1400	1450	1622	1715	2100
F	in.	33.66	35.04	36.61	37.40	41.34	49.21
	mm	855	890	930	950	1050	1250
G	in.	64.76	68.11	79.53	84.65	94.09	128.35
	mm	1645	1730	2020	2150	2390	3260
H	in.	31.50	31.50	32.48	32.76	34.72	38.66
	mm	800	800	825	832	882	982
I	in.	70.08	71.26	82.48	92.52	95.28	117.92
	mm	1780	1810	2095	2350	2420	2995

KW2 Series

High Precision Progressive Knuckle-Joint Presses

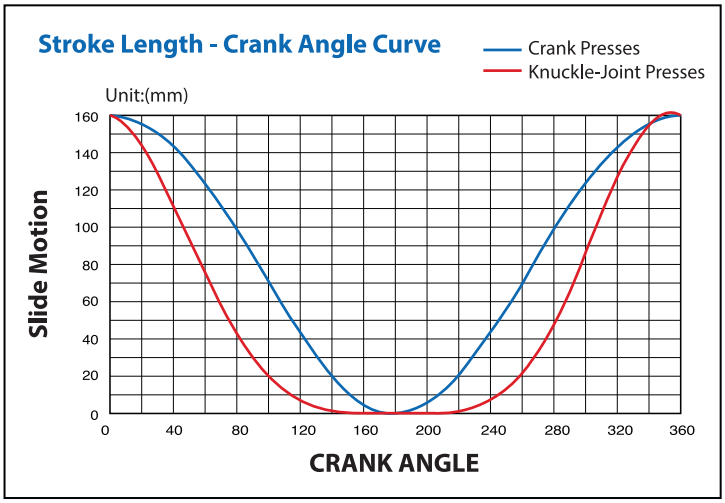
Stamtec KW2 Series - High Precision Progressive Knuckle-Joint Presses are specially designed for cold forging and are ideal for near net-shape forming. The cold forge technology forms steel components without cutting metal fibers, giving the product a more consistent and durable strength.

- High rigidity - minimum deflection
- Knuckle-joint mechanism longer BDC dwelling time, high precision
- Designed for thicker materials NET-shape blanking and coining
- Improved precision of products
- Prolong tooling life
- Improve quality and stability of high precision products
- Capable for wider stamping applications
- Reduce noise and vibration, improve quality of working environment.

KW2 - 400 Series

Stroke Length - Crank Angle Curve

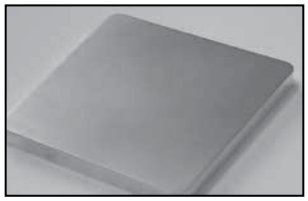
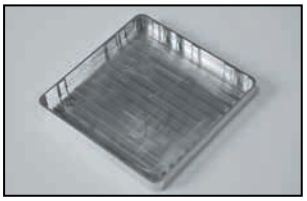
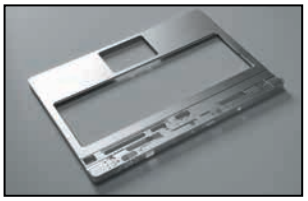
Knuckle-joint drive system creates a unique slide motion curve which extends the time for forming and also prevents "spring-back" of material. The slide motion creates low slide velocity through the work, allowing the material to flow and set better.



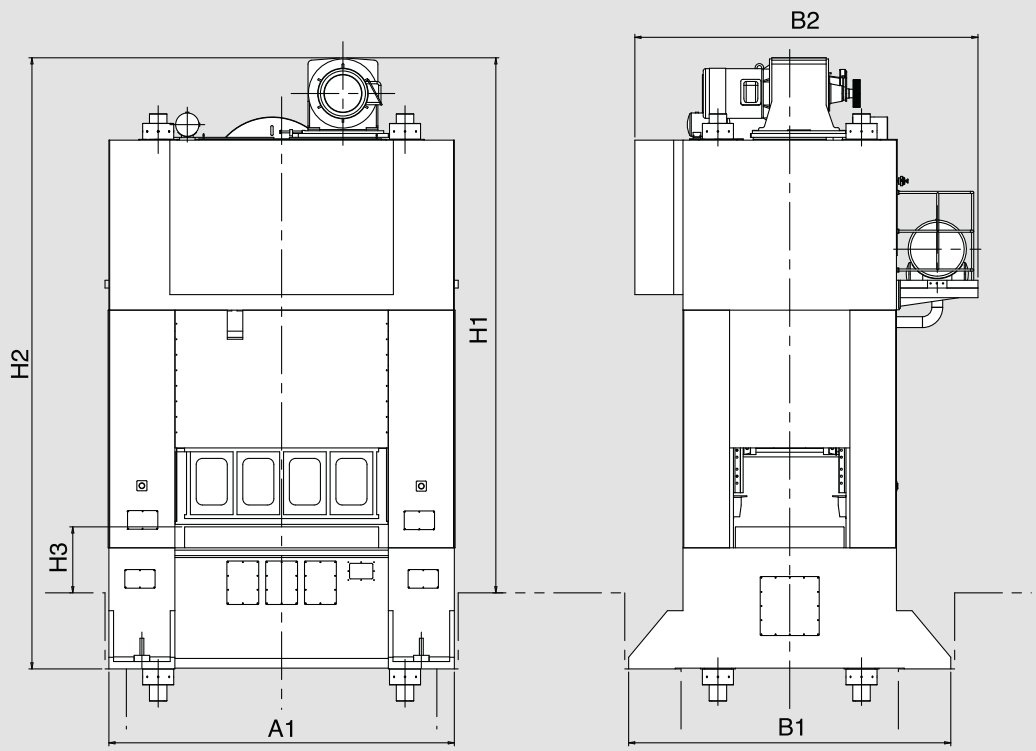
KW2 Specifications

			KW2-260	KW2-400	KW2-600	KW2-800	KW2-1000	KW2-1200
Capacity		US Tons	286.60	440.93	661.39	881.85	1102.31	1322.77
		Metric Tons	260	400	600	800	1000	1200
Rated tonnage point (above B.D.C.)		in.	0.32	0.32	0.32	0.32	0.32	0.32
		mm	8	8	8	8	8	8
Stroke length		in.	4.72	6.30	7.87	7.87	9.84	9.84
		mm	120	160	200	200	250	250
Speed	Variable	SPM	35	35	35	30	30	30
	Fixed		(25) 35 ~ 50	25 (35) ~ 50	25 ~ 45	25 ~ 40	20 ~ 35	20 ~ 35
Die height (S.D.A.U.)		in.	17.72 (19.29)	17.72 (22.84)	23.62	25.59	25.59	25.59
		mm	450 (490)	450 (580)	600	650	650	650
Slide adjustment		in.	1.97 (1.18)	2.95 (1.18)	3.94	4.72	4.72	5.91
		mm	50 (30)	75 (50)	100	120	120	150
Slide area (L.R. x F.B.)		in.	51.18 x 29.53	62.99 x 35.43	84.65 x 49.21	88.58 x 51.18	98.43 x 55.12	98.43 x 55.12
		mm	1300 x 750	1600 x 900	2150 x 1250	2250 x 1300	2500 x 1400	2500 x 1400
Bolster area (L.R. x F.B.)		in.	51.18 x 29.53	62.99 x 35.43	84.65 x 49.21	88.58 x 51.18	98.43 x 55.12	98.43 x 55.12
		mm	1300 x 750	1600 x 900	2150 x 1250	2250 x 1300	2500 x 1400	2500 x 1400
Slide opening		in.	15.75 x 15.75	31.50 x 23.62	51.18 x 34.45	55.12 x 34.45	57.09 x 34.45	57.09 x 34.45
		mm	400 x 400	800 x 600	1300 x 875	1400 x 875	1450 x 875	1450 x 875
Main motor		HP x P	40 x 4	75 x 4	125 x 4	175 x 4	175 x 4	200 x 4
Slide adjusting motor		KW x P	1.5 x 4	3.7 x 4	3.7 x 6	7.5 x 6	7.5 x 6	7.5 x 6
Working height		in.	47.09	44.69	33.47	33.47	33.47	33.47
		mm	1196	1135	850	850	850	850

Press Forgings

KW2 Outline Dimensions



MODEL		KW2-260	KW2-400	KW2-600	KW2-800	KW2-1000	KW2-1200
A1	in.	96.46	114.17	151.18	155.51	177.56	183.07
	mm	2450	2900	3840	3950	4510	4650
B1	in.	100.39	95.28	162.21	162.60	171.26	185.43
	mm	2550	2420	4120	4130	4350	4710
B2	in.	80.71	114.96	163.27	157.09	171.38	190.35
	mm	2050	2920	4147	3990	4353	4835
H1	in.	191.89	220.87	241.02	244.88	271.38	271.65
	mm	4874	5610	6122	6220	6893	6900
H2	in.	--	233.27	267.60	291.34	309.92	333.27
	mm	--	5925	6797	7400	7872	8465
H3	in.	47.09	44.69	33.47	33.47	33.47	33.47
	mm	1196	1135	850	850	850	850

KW Knuckle-Joint Drive System Benefits

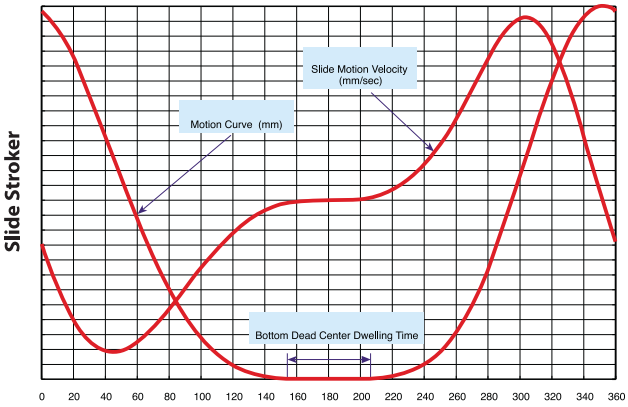
» The knuckle-joint mechanism provides for high precision and repeatability, with a long dwell time at bottom dead center.

» Lower snap through as a result lower slide velocity through the bottom portion of the stroke, resulting in lower part shear reverse tonnage, vibration, punch penetration, and noise.

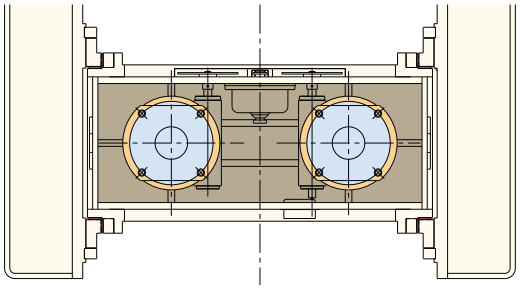
» Maximized straight line vertical force at BDC allowing for difficult forming and coining.

» Plunger-guiding (**KW2 only**), in conjunction with full-length nickel bronze 8-point gibbing and slide wear plates, offers maximum control, accuracy, ease of adjustment, and enables production of tight-tolerance parts. The plungers are guided by heavy plunger housings with bronze bushings. Side thrust is partially absorbed by the plunger guide housings and crown, helping to produce only vertical force through the slide and connections for greatest accuracy. In addition, uneven wear of the gibs and slide wear plates is minimized.

Motion Curve

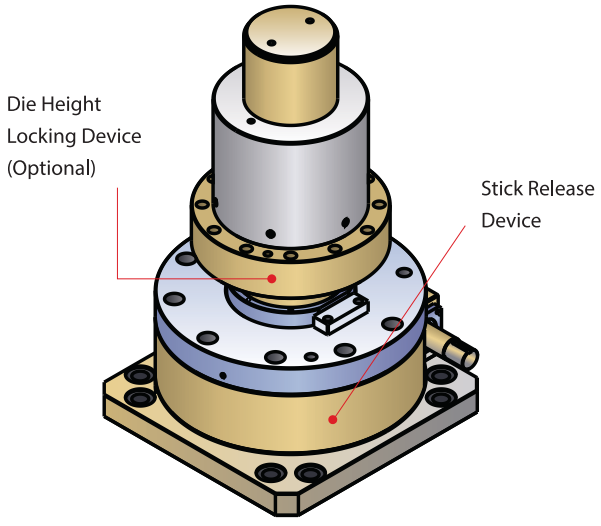


Precise, 8-Point Gibbing

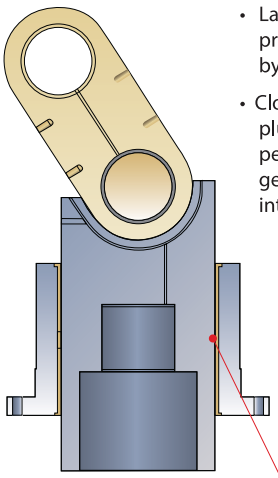


- Extra long, 8-point gibbing, bearing higher offcenter loads
- High precision
- Frame provides full support to the lateral force directly
- Prolong tooling life

Stick Release & Die Height Locking Devise (Optional)



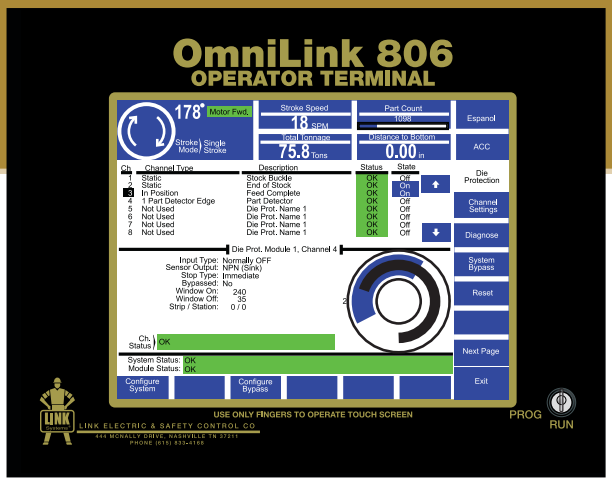
Plunger Guided (KW2 ONLY)



- Lateral force occurred during press operation will be absorbed by PLUNGER GUIDE
- Close structure in crown by using plunger guide not only provide perfect structure strength, reduce gear noise but also avoid intrusion of unexpected parts.

Press Controls

OmniLink 5100-APC (standard equipment)



Model 806, 10.4" color touch screen with English or Spanish display, provides easy setting 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 (configurable) for performance and diagnostics with 56 additional inputs.

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.

OPTIONAL Press Controls

from manufacturers including:

WINTRISS®

LINK Systems®

SIEMENS

Rockwell Automation

MITSUBISHI ELECTRIC

Allen-Bradley

Stroking modes - Off, Inch, Automatic Timed Inch, Setup / Stop Time Test, Single Stroke (Cycle), and Continuous. (Optional modes - Automatic Single Stroke (Cycle), Maintained Continuous, and Continuous on Demand).

Automatic Top Stop Compensation for use with variable speed presses.

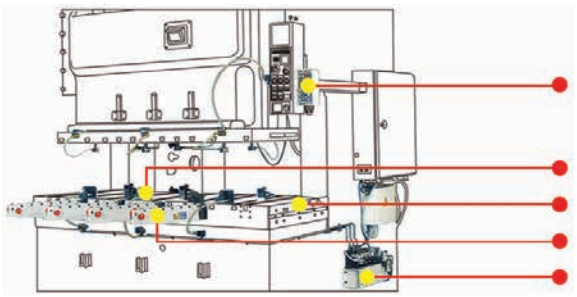
Four (4) nine-digit counters for stroke, parts, batch, and quality.

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

Lasting value with rugged modular design and Link technical support.

Quick Die Change System

Increase uptime by adding a Quick Die Change System to any NEW or EXISTING STAMTEC Press.



* Q.D.C. available on both KW1 and KW2 Series Presses

STAMTEC®

METAL STAMPING & FORMING EQUIPMENT

Stamtec has been providing dependable, affordably priced metal stamping presses for almost 40 years in North America, and almost 70 years worldwide through our parent company Chin Fong. 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. So, tap into our global strength, and grow with us as we grow with you!

GAP FRAME PRESSES

1-POINT AND 2-POINT

STRAIGHT SIDE PRESSES

1-POINT, 2-POINT AND 4-POINT

SERVO PRESSES

1-POINT AND 2-POINT
GAP AND STRAIGHT SIDE

FORGING PRESSES

WARM / HOT AND COLD

COIL FEEDING & HANDLING SYSTEMS

STAMTEC®

METAL STAMPING & FORMING EQUIPMENT

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

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