

MMC

Condensed Catalog 45-1,200 Metric Tons Capacity



Product Overview

The Nidec Minster Corporation's MMC Press Line offers metal stampers a wide range of cost-effective solutions. Mechanical and servo press offerings include single and two-point gap, unitized frame straightsides, and a full complement of tie rod construction straightside machines with crankshaft or eccentric geared drives in two or four-point configurations up to 1,200 tons capacity.

In collaboration with the Ningbo CFG Machinery Company, MMC Presses have been engineered and built to provide a combination of reliable performance, quality and value. All machines meet or exceed JIS Class 1 accuracy standards, and are equipped with a variety of features to help improve productivity.

MMC Presses can be custom-engineered to meet a wide range of specific manufacturing requirements. In addition, many standard models are in stock for short term or immediate delivery and start-up.

All MMC products are supported by the highly-responsive Nidec Press & Automation global customer service organization.



- 1 Designed and manufactured to meet or exceed JIS Class 1 accuracy standards.
- 2 Rigid steel frames to help minimize deflection and provide better accuracy while increasing tooling life.





3 Precision machined gears, forged steel crankshafts, and other drive train components are designed for smooth, quiet, and long-life press operation.

4 MMC's Mitsubishi PLC-based or custom controls provide simple operation, while a YASKAWA VFD allows for fine-tuning the press speed to best suit the application.

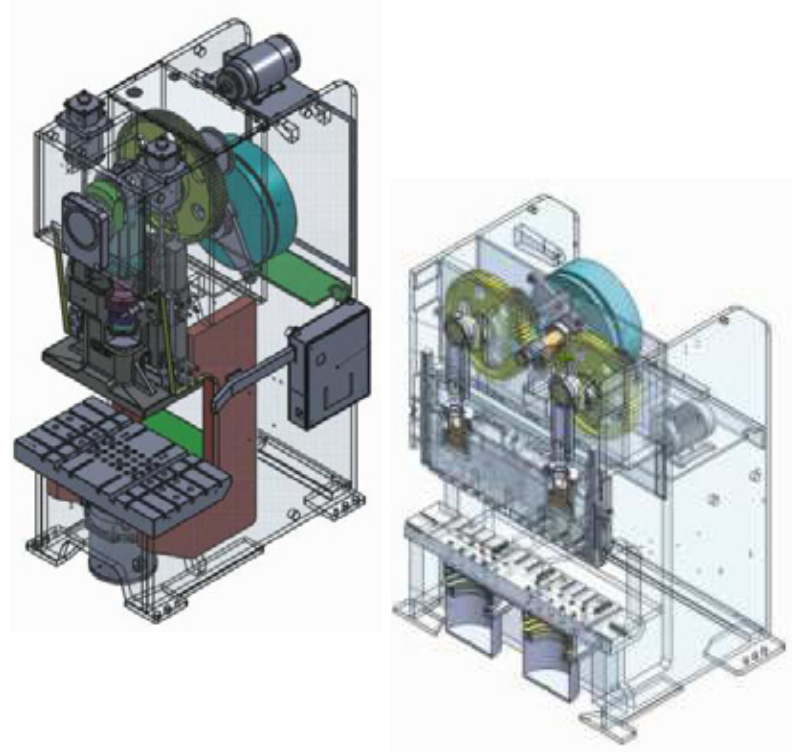
5 Fast-acting hydraulic overload protection system allows for quick reaction to problems.

6 MMC brand presses comply with ANSI-B11 Series and NFPA 79 standards.

CX1 & CX2 Series Gap Frame Mechanical Presses 45-315 Metric Tons

Standard Features

- Fabricated steel frame
- Wet clutch/brake
- Hydraulic overload protection
- 6-point slide guiding
- Single gear reduction drive
- Powered die height adjustment w/ electronic readout
- Automatic grease lubrication
- PLC-based control with 10" color touch screen
 - 8 channel PLS
 - 8 input die protection
- Isolator mounts
- Built to JIS Class 1 accuracy standards



Customization

While one of our standard configuration presses may be perfectly suitable for your needs, that may not always be the case. In such instances, all MMC presses can be custom-engineered to meet a wide variety of your special production requirements. These are just some of the special features we can provide — even if a one-off!

- 8-point slide guiding
- Inclined (or incline-able forms)
- Non-gearred (flywheel-type) drive for higher speed applications
- Recirculating oil lubrication
- Custom stroke and die height
- Custom high-energy drive for tough forming or drawing applications
- Custom slide and bolster dimensions
- Custom controls
- Custom die cushions
- Quick die change equipment
- Point-of-operation guarding
- Coil feed lines and automation

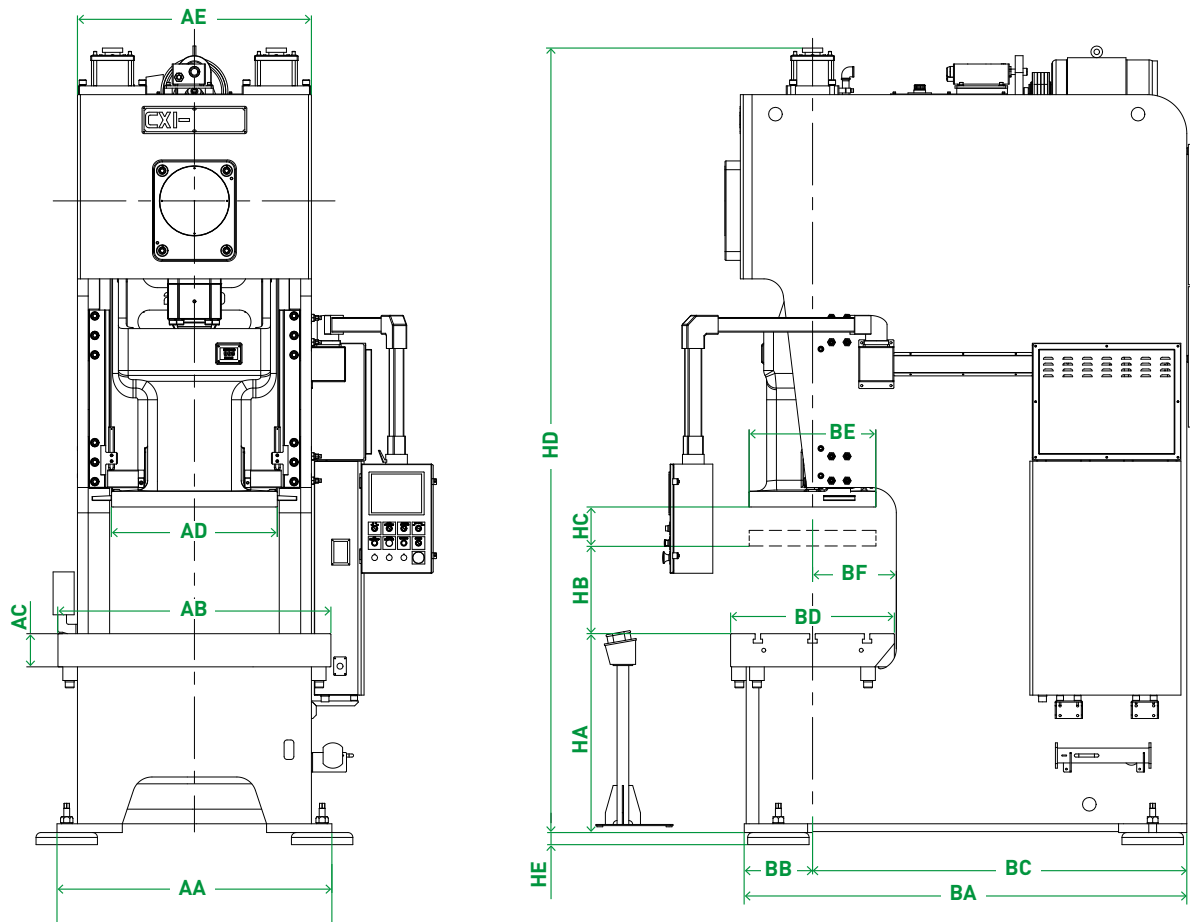


Specifications & Dimensions CX1 Series

		CX1-450		CX1-600		CX1-800		CX1-1100	
		L	S	L	S	L	S	L	S
Press Type									
Capacity in Tons		45 metric ton		60 metric ton		80 metric ton		110 metric ton	
		49.5 US ton		66 US ton		88 US ton		121 US ton	
Torque Capacity from BDC	mm	3.2	1.6	4	2	5	3.2	5	3.2
	in	0.126	0.063	0.157	0.079	0.197	0.126	0.197	0.126
Approximate Press Weight	kg	3,800		5,600		7,000		9,500	
	lb	8,360		12,320		15,400		20,900	
Stroke Length	mm	80	50	120	60	150	100	180	110
	in	3.15	1.97	4.72	2.36	5.91	3.94	7.09	4.33
Speed Range at Full Tonnage	spm	50-100	75-150	45-90	60-120	40-75	55-110	30-60	50-100
Area of Slide, R-L x F-B	mm	400 x 300		500 x 360		700 x 460		960 x 520	
	in	15.75 x 11.81		19.69 x 14.17		27.56 x 18.11		37.80 x 20.47	
Recommended Max Upper Die Weight	kg	300		300		500		550	
	lb	660		660		1,100		1210	
Bolster Plate Thickness	mm	90		90		100		120	
	in	3.54		3.54		3.94		4.72	
Area of Bolster, R-L x F-B	mm	850 x 440		900 x 500		1,000x600	1,000x460	1,150x680	1,150x520
	in	33.46 x 17.32		35.43 x 19.69		39.4x23.6	39.4x18.11	45.3x26.8	45.3x20.5
Throat Depth, F-B	mm	225		255		305	235	350	270
	in	8.86		10.04		12.01	9.25	13.78	10.63
Bed Deflection	mm	1/6,000		1/6,000		1/6,000		1/6,000	
	in	0.0018		0.0018		0.0018		0.0018	
Shutheight Maximum (SDAU)	mm	250		310		330	300	350	320
	in	9.84		12.20		12.99	11.81	13.78	12.60
Shutheight Adjustment	mm	60		75		80		80	
	in	2.36		2.95		3.15		3.15	
Drive Motor	kw	3.7		5.5		7.5		7.5	
	hp	5.0		7.4		10.1		10.1	
Compressed Air Requirement	Mpa	0.55		0.55		0.55		0.55	
	psi	80		80		80		80	

Specifications & Dimensions CX1 Series

		CX1-1600		CX1-2000		CX1-2500		CX1-3150	
		L	S	L	S	L	S	L	S
Press Type									
Capacity in Tons		160 metric ton		200 metric ton		250 metric ton		315 metric ton	
		176 US ton		220 US ton		275 US ton		346.5 US ton	
Torque Capacity from BDC	mm	6	3.2	6	4.5	7	4.5	7	4.5
	in	0.236	0.126	0.236	0.177	0.276	0.177	0.276	0.177
Approximate Press Weight	kg	13,000		20,000		26,000		29,000	
	lb	28,600		44,000		57,200		63,800	
Stroke Length	mm	200	130	200	160	200	160	250	160
	in	7.87	5.12	7.87	6.30	7.87	6.30	9.84	6.30
Speed Range at Full Tonnage	SPM	25-50	40-80	25-45	35-70	20-40	30-60	20-40	30-60
Area of Slide, R-L x F-B	mm	980 x 580		1100 x 650		1200 x 700		1200 x 700	
	in	38.58 x 22.83		43.31 x 25.59		47.24 x 27.56		47.24 x 27.56	
Recommended Max Upper Die Weight	kg	550		900		900		920	
	lb	1,210		1,980		1,980		2,024	
Bolster Plate Thickness	mm	150		170		180		180	
	in	5.91		6.69		7.09		7.09	
Area of Bolster, R-L x F-B	mm	1250 x 760	1250 x 600	1400 x 840	1400 x 680	1500 x 900	1500 x 710	1600 x 900	1600 x 710
	in	49.2 x 29.92	49.21 x 23.62	55.12 x 33.07	55.12 x 26.77	59.06 x 35.43	59.06 x 27.95	62.99 x 35.43	62.99 x 27.95
Throat Depth, F-B	mm	390	310	430	350	460	380	460	380
	in	15.35	12.20	16.93	13.78	18.11	14.96	18.11	14.96
Bed Deflection	mm	1/6,000		1/6,000		1/6,000		1/6,000	
	in	0.0018		0.0018		0.0018		0.0018	
Shutheight Maximum (SDAU)	mm	450	400	450	400	450	400	450	400
	in	17.72	15.75	17.72	15.75	17.72	15.75	17.72	15.75
Shutheight Adjustment	mm	100		110		120		120	
	in	3.94		4.33		4.72		4.72	
Drive Motor	kW	11		15		15		18.5	
	hp	14.7		20.1		20.1		24.8	
Compressed Air Requirement	Mpa	0.55		0.55		0.55		0.55	
	psi	80		80		80		80	



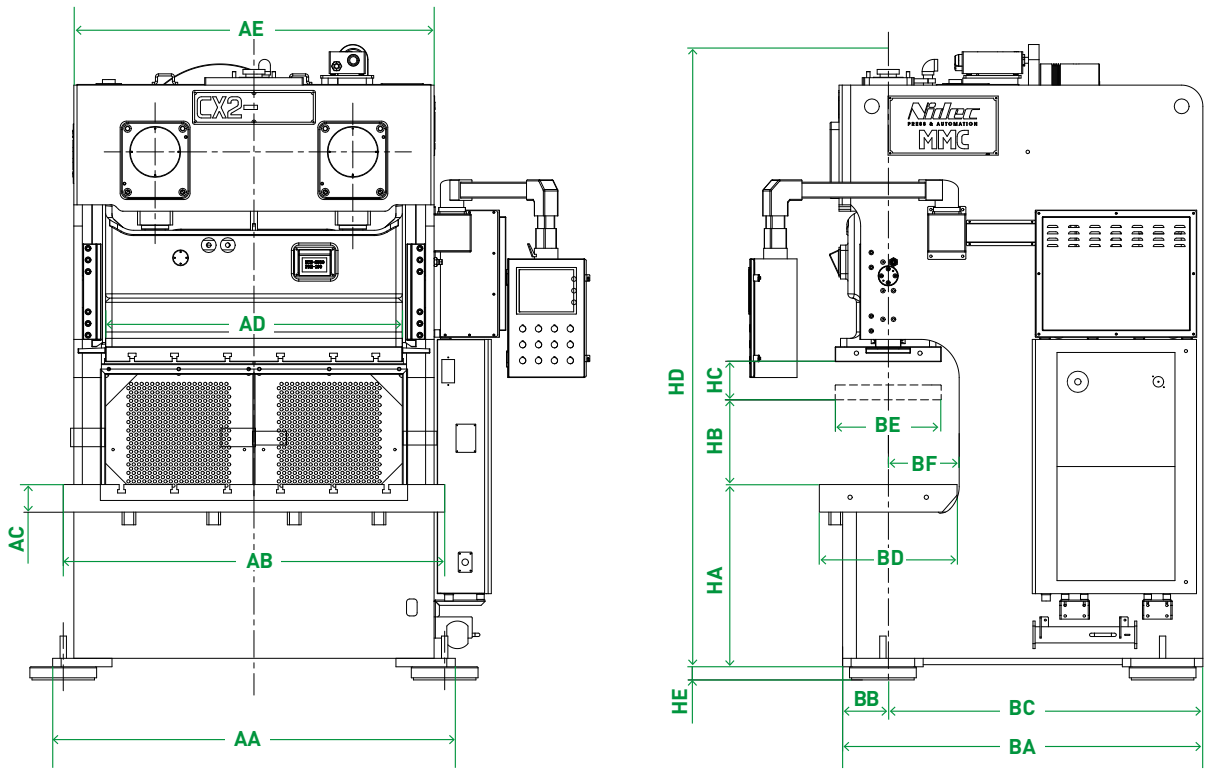
		CX1-450		CX1-600		CX1-800		CX1-1100		CX1-1600		CX1-2000		CX1-2500		CX1-3150	
		L	S	L	S	L	S	L	S	L	S	L	S	L	S	L	S
AA	mm	790		910		1060		1110		1250		1410		1600		1700	
AB	mm	850		900		1000		1150		1250		1400		1500		1600	
AC	mm	90		90		100		120		150		170		180		180	
AD	mm	400		500		700		960		980		1100		1200		1200	
AE	mm	650		750		865		930		1030		1200		1340		1440	
BA	mm	1335		1495		1635		1790		1960		2270		2460		2715	
BB	mm	185		205		250		290		300		350		400		385	
BC	mm	1150		1290		1385		1500		1660		1920		2060		2330	
BD	mm	440		500		600	460	680	520	760	600	840	680	900	710	900	710
BE	mm	300		360		460		520		580		650		700		700	
BF	mm	225		255		310	240	350	270	390	310	430	350	460	380	460	380
HA	mm	800		800		835		840		900		1020		1100		1140	
HB	mm	250		310		305	235	350	320	450	400	450	400	450	400	450	400
HC	mm	80	50	120	60	150	100	180	110	200	130	200	160	200	160	250	160
HD	mm	2365	2350	2650	2620	2950	2860	3060	3000	3495	3420	4090	4020	4200	4130	4560	4490
HE	mm	45		53		53		53		62		62		62		62	

* Above specifications are subject to change when custom specifications apply.

Specifications & Dimensions CX2 Series

		CX2-1100		CX2-1600		CX2-2000		CX2-2500	
		L	S	L	S	L	S	L	S
Press Type									
Capacity in Tons		110 metric ton		160 metric ton		200 metric ton		250 metric ton	
		121 US ton		176 US ton		220 US ton		275 US ton	
Torque Capacity from BDC	mm	5	3.2	6	3.2	6	3.2	7	4.5
	in	0.197	0.126	0.236	3.2	0.236	0.126	0.276	0.177
Approximate Press Weight	kg	13,500		19,500		28,000		35,000	
	lb	29,700		42,900		61,600		77,000	
Stroke Length	mm	180	110	200	130	250	150	280	170
	in	7.09	4.33	7.87	5.12	9.84	5.91	11.02	6.69
Speed Range at Full Tonnage	SPM	35-65	50-100	30-55	40-85	25-45	35-70	20-35	30-60
Area of Slide, L-R x F-B	mm	1,400 x 500		1,600 x 550		1,850 x 650		2,100 x 700	
	in	55.12 x 19.69		62.99 x 21.65		72.83 x 25.59		82.68 x 27.56	
Recommended Max Upper Die Weight	kg	450		1,000		1,200		1,600	
	lb	990		2,200		2,640		3,520	
Bolster Plate Thickness	mm	130		150		170		170	
	in	5.12		5.91		6.69		6.69	
Area of Bolster, L-R x F-B	mm	1,800 x 650	1,800 x 520	2,000 x 760	2,000 x 600	2,400 x 840	2,400 x 680	2,700 x 900	2,700 x 760
	in	70.87 x 25.59	70.87 x 20.47	78.74 x 29.92	78.74 x 23.62	94.49 x 33.07	94.49 x 26.77	106.30 x 35.43	106.30 x 29.92
Throat Depth, F-B	mm	335	270	390	310	430	350	460	390
	in	13.19	270	15.35	12.20	16.93	13.78	18.11	15.35
Bed Deflection Across	mm	1/6,000		1/6,000		1/6,000		1/6,000	
	in	0.0015		0.0015		0.0015		0.0015	
Shutheight Maximum (SDAU)	mm	400	350	450	400	500	450	550	450
	in	15.75	13.78	17.72	15.75	19.69	17.72	21.62	17.72
Shutheight Adjustment	mm	100		100		120		120	
	in	3.94		3.94		4.72		4.72	
Drive Motor	kW	11		11		15		15	
	hp	15		15		20		20	
Compressed Air Requirement	Mpa	0.55		0.55		0.55		0.55	
	psi	80		80		80		80	

CX2-3150	
L	S
315 metric ton	
346.5 US ton	
7	4.5
0.276	0.177
43,000	
94,600	
280	170
11.02	6.69
25-35	30-60
2,100 x 700	
82.68 x 27.56	
1,800	
3,960	
180	
7.09	
2,700 x 900	2,700 x 760
106.30 x 35.43	106.30 x 29.92
460	390
18.11	15.35
1/6,000	
0.00145	
550	450
21.65	17.72
120	
4.72	
18.5	
25	
0.55	
80	



		CX2-1100		CX2-1600		CX2-2000		CX2-2500		CX2-3150	
		L	S	L	S	L	S	L	S	L	S
AA	mm	1900		2200		2550		3000		3100	
AB	mm	1800		2000		2400		2700		2700	
AC	mm	130		150		170		170		180	
AD	mm	1400		1600		1850		2100		2100	
AE	mm	1700		1970		2250		2570		2620	
BA	mm	1745		1970		2275		2585		2680	
BB	mm	260		310		355		425		870	
BC	mm	1485		1660		1920		2160		1810	
BD	mm	650	520	760	600	840	680	900	760	900	760
BE	mm	500		550		650		700		700	
BF	mm	335	270	390	310	430	350	460	390	460	390
HA	mm	830		905		1000		1100		1100	
HB	mm	400	350	450	400	500	450	550	450	550	450
HC	mm	180	110	200	130	250	150	280	170	280	170
HD	mm	2780	2700	3185	3100	3660	3570	4070	3920	4180	4080
HE	mm	62		62		79		95		95	

* Above specifications are subject to change when custom specifications apply.

DX1-SV Series D-Frame Single Crank Servo Press 200 Metric Tons

Standard Features

MMC's DX series frames are a rigid one-piece steel fabricated design that offers superior strength combined with exceptional resistance to torsion, deflection, and vibration. All MMC presses are put through rigorous FEA (Finite Element Analysis) testing to ensure superior strength and resistance to deflection in the press frame structure. The closed frame design has been engineered to provide maximum rigidity and parallelism for optimum tooling performance and part accuracy.

- 8-point slide guiding
- Automatic recirculating oil lubrication
- Air counterbalance system
- Hydraulic overload protection
- Isolator mounts
- Water cooling system for higher performance of servo motor
- Analog mechanical crankshaft angle indicator
- MMC servo presses use Allen-Bradley PLC and VFD as a standard control platform
- PHASE industrial servo motor provides high efficiency, low revolution-high torque output for forming applications
- Built to JIS Class 1 accuracy standards
- Five default motion profiles for immediate use
- eWon internet connectivity for remote service support



Customization

While one of our standard configuration presses may be perfectly suitable for your needs, that may not always be the case. In such instances, all MMC presses can be custom-engineered to meet a wide variety of your special production requirements. These are just some of the special features we can provide — even if a one-off!

Specifications & Dimensions

DX1-SV Series

	DX1-2000-SV	
Capacity in Tons	200 metric ton	220 US ton
Tonnage Rating Above BDC	6 mm	0.23 in
Working Energy	15 kJ	66.4 inch-ton
Full Stroke Length	250 mm	9.84 in
SPM @ Full Length	50 SPM	
SPM @ Pendulum Stroke	101 @ 50 mm	101 @ 1.96 in
	89 @ 75 mm	89 @ 2.95 in
	80 @ 100 mm	80 @ 3.93 in
	77 @ 110 mm	77 @ 4.33 in
	73 @ 125 mm	73 @ 4.92 in
	63 @ 160 mm	63 @ 6.29 in
	56 @ 200 mm	56 @ 7.87 in
Max Die Height	450 mm	17.72 in
Slide Adjustment	110 mm	4.33 in
Bolster Area (LR x FR)	1,250 x 680 mm	49.21 x 26.70 in
Thickness of Bolster	170 mm	6.69 in
Slide Area (LR x FR)	1,000 x 650 mm	39.37 x 25.60 in
Side Opening	600 x 370 mm	23.62 x 14.57 in
Max. Upper Die Weight	900kg	1,980 lbs
Main Motor	182 kW	244 hp
Deflection	1/7,000	0.0015 in

* Stroke rate depends on profile of stroke and press mechanical properties.

DX1 & DX2 Series “D” Frame Mechanical Presses 110-315 Metric Tons

Standard Features

- Fabricated steel frame with one-piece side frames to greatly reduce angular deflection
- Wet clutch/brake
- Hydraulic overload protection
- 6-point slide guiding
- Single gear reduction drive
- Powered die height adjustment w/ electronic readout
- Automatic lubrication
- PLC-based control with 10” color touch screen
 - 8 channel PLS
 - 8 input die protection
- Isolator mounts
- 1/7,000 mm frame deflection for more accurate parts and longer tooling life
- Built to JIS Class 1 accuracy standards



Customization

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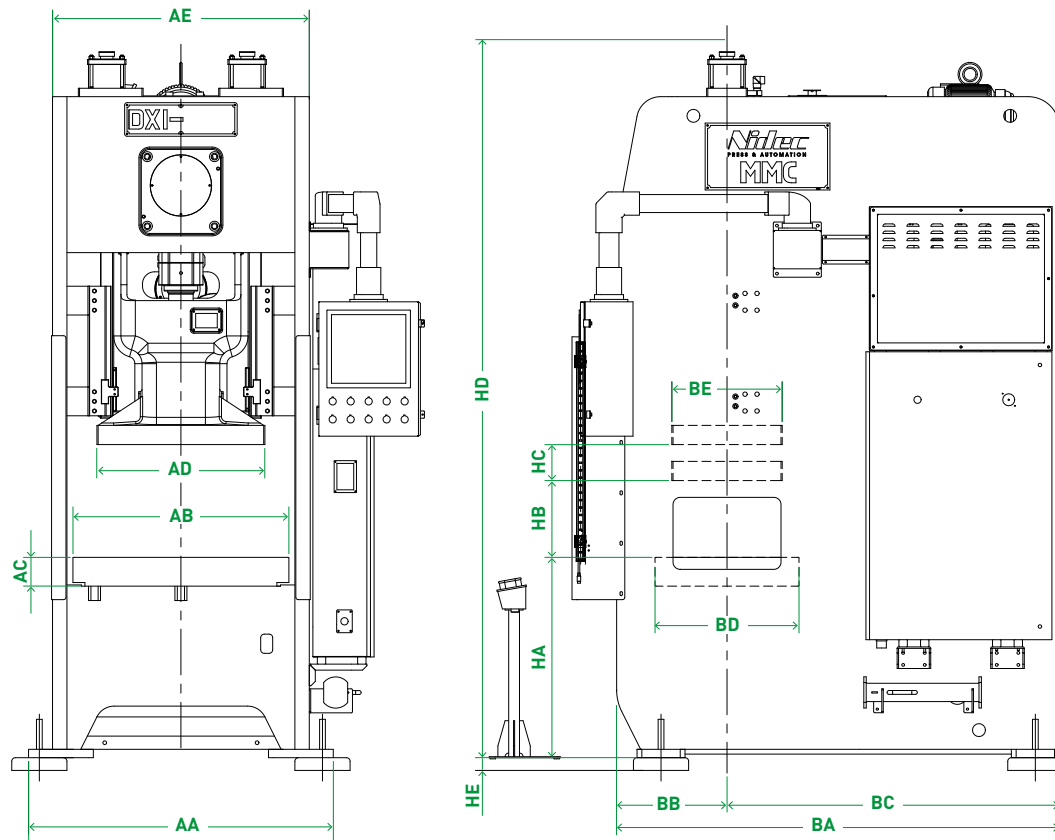
- 8-point slide guiding
- Non-gearred (flywheel-type) drive for higher speed applications
- Recirculating oil lubrication
- Custom stroke and die height
- Custom high-energy drive for tough forming or drawing applications
- Custom slide and bolster dimensions
- Custom controls
- Custom die cushions



		DX1-1100		DX1-1600		DX1-2000	
		L	S	L	S	L	S
Press Type							
Capacity in Tons		100 metric ton		160 metric ton		200 metric ton	
		121 US ton		176 US ton		220 US ton	
Torque Capacity from BDC	mm	5	3.2	6	3.2	6	4.5
	in	0.197	0.126	0.236	0.126	0.236	0.177
Approximate Press Weight	kg	11,500		17,000		25,000	
	lb	25,300		37,400		55,000	
Stroke Length	mm	180	70	200	80	200	90
	in	7.09	2.76	7.87	3.15	7.87	3.54
Speed Range at Full Tonnage	SPM	30-60	65-135	25-50	55-110	25-45	45-90
Area of Slide, R-L x F-B	mm	800 x 520		900 x 580		1,000 x 650	
	in	31.50 x 20.47		35.43 x 22.83		39.37 x 25.59	
Recommended Max Upper Die Weight	kg	550		550		900	
	lb	1,210		1,210		1,980	
Bolster Plate Thickness	mm	120		150		170	
	in	4.72		5.91		6.69	
Area of Bolster, R-L x F-B	mm	1,000 x 680	1,000 x 520	1,150 x 760	1,150 x 600	1,250 x 840	1,250 x 680
	in	39.37x26.77	39.37x20.47	45.28x29.92	45.28x23.62	49.21x33.07	49.21x26.77
Side Opening	mm	500		600		600	
	in	19.69		23.62		23.62	
Bed Deflection Across 67% of Die Area	mm	1/7,000		1/7,000		1/7,000	
	in	0.0015		0.0015		0.0015	
Shutheight Maximum (SDAU)	mm	350	300	400	350	450	400
	in	13.78	11.81	15.75	13.78	17.72	15.75
Shutheight Adjustment	mm	80		100		110	
	in	3.15		3.94		4.33	
Drive Motor	kW	7.5		11		15	18.5
	hp	10.1		14.7		20.1	24.8
Compressed Air Requirement	Mpa	0.55		.55		0.55	
	psi	80		80		80	

Specifications & Dimensions DX1 Series

		DX1-2500		DX1-3150	
		L	S	L	S
Press Type					
Capacity in Tons		250 metric ton		315 metric ton	
		275 US ton		346.5 US ton	
Torque Capacity from BDC	mm	6.5	4.5	7	4.5
	in	0.256	0.177	0.276	0.177
Approximate Press Weight	kg	28,000		32,000	
	lb	61,600		70,400	
Stroke Length	mm	200	90	250	90
	in	7.87	3.54	9.84	3.54
Speed Range at Full Tonnage	SPM	20-40	40-80	20-40	45-75
Area of Slide, R-L x F-B	mm	1,000 x 700		1,000 x 700	
	in	39.37 x 27.56		39.37 x 27.56	
Recommended Max Upper Die Weight	kg	900		920	
	lb	1,980		2,024	
Bolster Plate Thickness	mm	180		180	
	in	7.09		7.09	
Area of Bolster, R-L x F-B	mm	1,250 x 840	1,250 x 680	1,250 x 840	1,250 x 680
	in	49.21 x 33.07	49.21 x 26.77	49.21 x 33.07	49.21 x 26.77
Side Opening	mm	770		770	
	in	30.31		30.31	
Bed Deflection Across 67% of Die Area	mm	1/7,000		1/7,000	
	in	0.0015		0.0015	
Shutheight Maximum (SDAU)	mm	450	400	450	400
	in	17.72	15.75	17.72	15.75
Shutheight Adjustment	mm	120		120	
	in	4.72		4.72	
Drive Motor	kW	15	18.5	18.5	22
	hp	20.1	24.8	24.8	29.5
Compressed Air Requirement	Mpa	0.55		0.55	
	psi	80		80	



		DX1-1100		DX1-1600		DX1-2000		DX1-2500		DX1-3150	
		L	S	L	S	L	S	L	S	L	S
AA	mm	1380		1600		1760		1790		1810	
AB	mm	1000		1150		1250		1250		1250	
AC	mm	120		150		170		180		180	
AD	mm	800		900		1000		1000		1000	
AE	mm	1200		1380		1520		1530		1550	
BA	mm	2000		2210		2515		2990		2790	
BB	mm	550		550		665		745		760	
BC	mm	1450		1660		1850		2245		2030	
BD	mm	680	520	760	600	840	680	840	680	840	680
BE	mm	520		580		650		700		700	
HA	mm	925		900		990		1100		1140	
HB	mm	350	300	400	350	450	400	450	400	450	400
HC	mm	180	70	200	80	200	90	200	90	250	90
HD	mm	3060	3000	3495	3420	4090	4020	4200	4130	4560	4490
HE	mm	53		62		62		62		62	

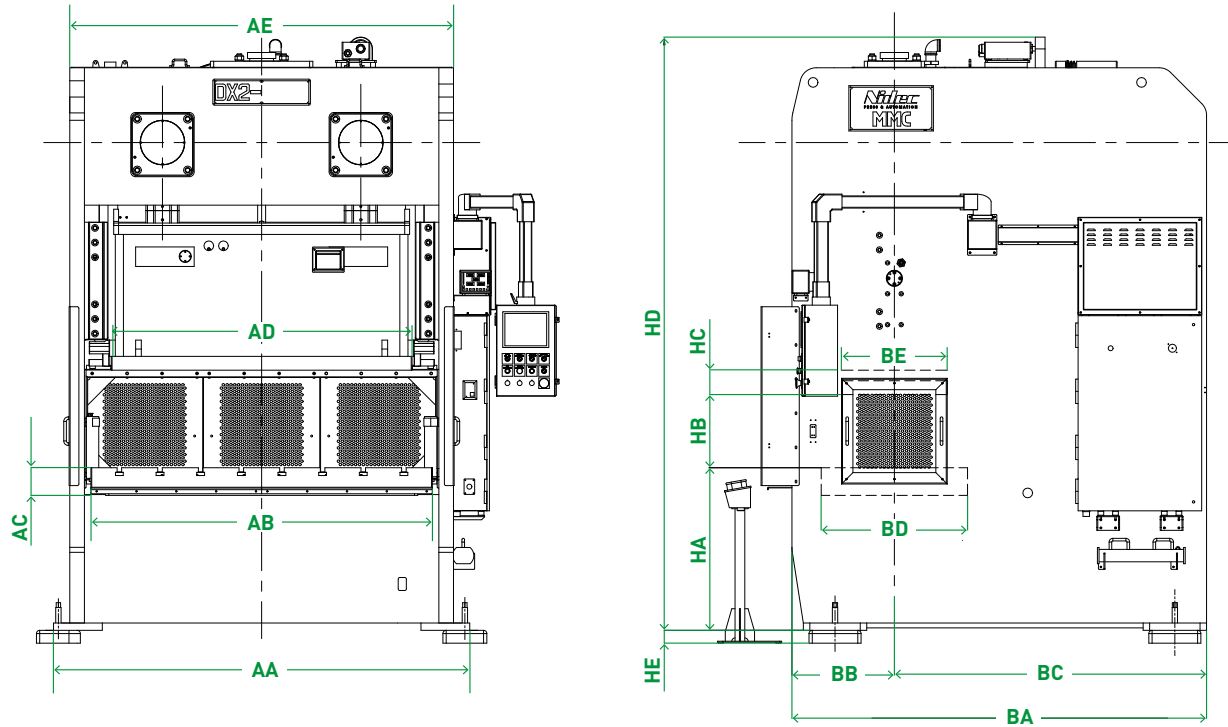
* Above specifications are subject to change when custom specifications apply.

Specifications & Dimensions DX2 Series

		DX2-1100		DX2-1600	
		L	S	L	S
Press Type					
Capacity in Tons		110 metric ton		160 metric ton	
		121 US tons		176 US ton	
Torque Capacity from BDC	mm	5	3.2	6	3.2
	in	0.197	0.126	0.236	0.126
Approximate Press Weight	kg	16,000		21,000	
	lb	35,200		46,200	
Stroke Length	mm	180	110	200	130
	in	7.09	4.33	7.87	5.12
Speed Range at Full Tonnage	SPM	35-65	50-100	30-55	40-85
Area of Slide, R-L x F-B	mm	1,400 x 500		1,600 x 550	
	in	55.12 x 19.69		62.99 x 21.65	
Recommended Max Upper Die Weight	kg	450		1,000	
	lb	990		2,200	
Bolster Plate Thickness	mm	130		150	
	in	5.12		5.91	
Area of Bolster, R-L x F-B	mm	1,600 x 700		1,800 x 800	
	in	62.99 x 27.56		70.87 x 31.50	
Side Opening	mm	450		500	
	in	17.72		19.69	
Bed Deflection Across 67% of Die Area	mm	1/7,000		1/7,000	
	in	0.0015		0.0015	
Shutheight Maximum (SDAU)	mm	400	350	450	400
	in	15.75	13.78	17.72	15.75
Shutheight Adjustment	mm	100		100	
	in	3.94		3.94	
Drive Motor	kW	11		11	
	hp	15		15	
Compressed Air Requirement	Mpa	0.55		0.55	
	psi	80		80	

DX2-2000		DX2-2500		DX2-3150	
L	S	L	S	L	S
200 metric ton		250 metric ton		315 metric ton	
220 US ton		275 US ton		346.5 US ton	
6	3.2	7	4.5	7	4.5
0.236	0.126	0.276	0.177	0.276	0.177
29,500		37,500		46,500	
64,900		82,500		102,300	
250	150	280	170	280	170
9.84	5.91	11.02	6.69	11.02	6.69
25-45	35-70	20-35	30-60	25-35	30-60
1,850 x 650		2,100 x 700		2,100 x 700	
72.83 x 25.59		82.68 x 27.56		82.68 x 27.56	
1,200		1,600		1,800	
2,640		3,520		3,960	
170		170		180	
6.69		6.69		7.09	
2,100 x 900		2,400 x 1,000		2,400 x 1,000	
82.68 x 35.43		94.49 x 39.37		94.49 x 39.37	
600		650		650	
23.62		25.59		25.59	
1/7,000		1/7,000		1/7,000	
0.0015		0.0015		0.0015	
500	450	550	450	550	450
19.69	17.72	21.65	17.72	21.65	17.72
120		120		120	
4.72		4.72		4.72	
15		15		15	
20		20		20	
0.55		0.55		0.55	
80		80		80	

Specifications & Dimensions DX2 Series



	DX2-1100		DX2-1600		DX2-2000		DX2-2500		DX2-3150	
	L	S	L	S	L	S	L	S	L	S
AA	2020		2370		2740		3000		3180	
AB	1600		1800		2100		2400		2400	
AC	130		150		170		170		180	
AD	1400		1600		1850		2100		2100	
AE	1790		2020		2360		2640		2680	
BA	1960		2230		2550		2850		2500	
BB	475		580		630		690		690	
BC	1485		1650		1920		2160		1810	
BD	700		800		900		1000		1000	
BE	500		550		650		700		700	
HA	860		905		1000		1100		1080	
HB	400	350	450	400	500	450	550	450	550	450
HC	180	110	200	130	250	150	250	150	280	170
HD	2940	2860	3270	3185	3750	3650	3750	3650	4230	4075
HE	62		62		79		79		95	

* Above specifications are subject to change when custom specifications apply.

SX2-G Series Straightside Unitized Frame Presses

160-400 Metric Tons

Standard Features

- One-piece (monoblock) fabricated steel frame
- Wet clutch/brake
- Hydraulic overload protection
- 8-point slide guiding
- Single gear reduction drive
- Powered die height adjustment w/ electronic readout
- Automatic recirculating oil lubrication
- PLC-based control with 10" color touch screen
 - 8 channel PLS
 - 8 input die protection
- Isolator mounts
- Rigid 1/8,000 mm frame deflection for more accurate parts and longer tooling life
- Built to JIS Class 1 accuracy standards



Customization

While one of our standard configuration presses may be perfectly suitable for your needs, that may not always be the case. In such instances, all MMC presses can be custom-engineered to meet a wide variety of your special production requirements. These are just some of the special features we can provide — even if a one-off!



Specifications & Dimensions SX2-G Series

		SX2-1600G		SX2-2000G	
		L	S	L	S
Press Type					
Capacity in Tons		160 metric ton		200 metric ton	
		176 US ton		220 US ton	
Torque Capacity from BDC	mm	6.0	3.2	6.0	4.0
	in	0.24	0.13	0.24	0.16
Stroke Length	mm	200	100	250	130
	in	7.87	3.94	9.84	5.12
Speed Range at Full Tonnage	SPM	25-50	45-90	20-40	40-80
Die Height Over Bolster (SDAU)	mm	450		500	450
	in	17.72		19.69	17.72
Slide Adjustment	mm	100		120	
	in	3.94		4.72	
Area of Slide, R-L x F-B	mm	1,600 x 750 - 2,400 x 1,000		1,600 x 750 - 2,400 x 1,000	
	in	62.99 x 29.53 - 94.49 x 39.37		62.99 x 29.53 - 94.49 x 39.37	
Area of Bolster, R-L x F-B	mm	1,600 x 750 - 2,400 x 1,000		1,600 x 750 - 2,400 x 1,000	
	in	62.99 x 29.53 - 94.49 x 39.37		62.99 x 29.53 - 94.49 x 39.37	
Side Opening, L-R	mm	400		500	
	in	15.75		19.69	
Main Motor (VFD)	kW	15	15	15	18.5
	hp	20	15	20	25
Bolster Deflection	mm	1/8,000		1/8,000	
	in	0.0015		0.0015	
Compressed Air Requirement	Mpa	0.55		0.55	
	psi	80		80	

* 110 metric ton option is available upon request

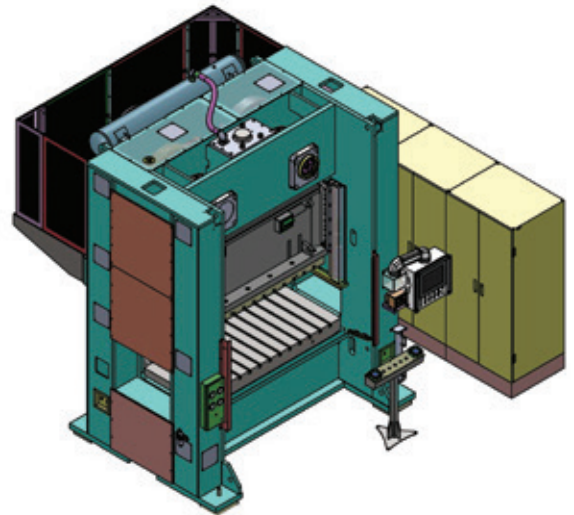
SX2-2500G		SX2-3000G		SX2-4000G	
L	S	L	S	L	S
250 metric ton		300 metric ton		400 metric ton	
275 US ton		330 US ton		440 US ton	
7.0	4.0	7.0	4.5	7.0	4.5
0.28	0.16	0.28	0.18	0.28	0.18
280	150	300	150	300	150
11.02	5.91	11.81	5.91	11.81	5.91
20-40	40-80	20-40	40-80	20-40	30-60
500	450	500	450	500	450
19.69	17.72	19.69	17.72	19.69	17.72
120		120		120	
4.72		4.72		4.72	
1,800 x 900 - 2,800 x 1,000		1,800 x 900 - 2,800 x 1,000		2,100 x 1,000 - 3,200 x 1,200	
70.87 x 35.43 - 110.24 x 39.37		70.87 x 35.43 - 110.24 x 39.37		82.68 x 39.37 - 125.98 x 47.24	
1,800 x 900 - 2,800 x 1,000		1,800 x 900 - 2,800 x 1,000		2,100 x 1,000 - 3,200 x 1,200	
70.87 x 35.43 - 110.24 x 39.37		70.87 x 35.43 - 110.24 x 39.37		82.68 x 39.37 - 125.98 x 47.24	
500	450	600		600	
19.69	17.72	23.62		23.62	
18.5	18.5	22	30	30	
25	25	30	40	40	
1/8,000		1/8,000		1/8,000	
0.0015		0.0015		0.0015	
0.55		0.55		0.55	
80		80		80	

SX2-G-SV Series Unitized -Frame Servo Press 200-300 Metric Tons

Standard Features

MMC's SX2-G-SV series straight side press frames are a rigid one-piece steel fabricated design that offers superior strength combined with exceptional resistance to torsion, deflection, and vibration. All MMC presses are put through rigorous FEA (Finite Element Analysis) testing to ensure superior strength and resistance to deflection in the press frame structure. The closed frame design has been engineered to provide maximum rigidity and parallelism for optimum tooling performance and part accuracy.

- 8-point slide guiding
- Automatic recirculating oil lubrication
- Air counterbalance system
- Hydraulic overload protection
- Isolator mounts
- Water cooling system for higher performance of servo motor
- Analog mechanical crankshaft angle indicator
- MMC servo presses use Allen-Bradley PLC and VFD as a standard control platform
- PHASE industrial servo motor provides high efficiency, low revolution-high torque output for forming applications
- Built to JIS Class 1 accuracy standards
- Five default motion profiles for immediate use
- eWon internet connectivity for remote service support



Customization

While one of our standard configuration presses may be perfectly suitable for your needs, that may not always be the case. In such instances, all MMC presses can be custom-engineered to meet a wide variety of your special production requirements. These are just some of the special features we can provide — even if a one-off!

Specifications & Dimensions SX2-G-SV Series

	SX2-2000G-SV		SX2-3000G-SV	
Capacity in Tons	200 metric ton	220 US ton	300 metric ton	330 US ton
Tonnage Rating Above BDC	6 mm	0.23 in	6 mm	0.23
Working Energy	15 kJ	66.4 inch-ton	40 kJ	177 inch-ton
Stroke Length	250 mm	9.84 in	300 mm	11.81 in
SPM @ Full Stroke	50 SPM @ 250 mm		40 SPM @ 300 mm	
SPM @ Pendulum Stroke	101 @ 50 mm	101 @ 1.96 in	85 @ 50 mm	85 @ 1.96 in
	89 @ 75 mm	89 @ 2.95 in	75 @ 75 mm	75 @ 2.95 in
	80 @ 100 mm	80 @ 3.93 in	65 @ 100 mm	65 @ 3.93 in
	77 @ 110 mm	77 @ 4.33 in	58 @ 125 mm	58 @ 4.92 in
	73 @ 125 mm	73 @ 4.92 in	54 @ 150 mm	54 @ 5.90 in
	63 @ 160 mm	63 @ 6.29 in	-	-
	56 @ 1200 mm	56 @ 7.87 in	-	-
Max Die Height	500 mm	19.68 in	550 mm	21.65 in
Slide Adjustment	110 mm	4.33 in	120 mm	4.72 in
Bolster Area (LR x FR)	2,150 x 840 mm	84.64 x 33.07 in	2,400 x 1,100 mm	94.48 x 43.30 in
Thickness of Bolster	170 mm	6.69 in	200 mm	7.87 in
Slide Area (LR x FR)	1,850 x 650 mm	72.83 x 25.59 in	2,400 x 900 mm	94.48 x 35.43 in
Side Opening	750 x 450 mm	29.52 x 17.71 in	800 x 450 mm	31.49 x 17.71 in
Working Height from Floor	1,000 mm	39.37 in	1,240 mm	48.81 in
Max. Upper Die Weight	1,200 kg	2,640 lbs	2,000 kg	4,400 lbs
Air Source	0.55 MPa	80 psi	0.55 MPa	80 psi
Main Motor	182 kW	245 hp	160 x 2 kW	429hp
Deflection	1/7,000 mm	0.0015 in	1/8,000	0.0015 in

Specifications & Dimensions SX2, SE2, SE4 Press Series

Standard Features

- Standard 1/8,000 mm deflection on bed and slide, 1/9,000 mm or less available
- Wet clutch and brake
- Hydraulic overload protection

Customization

- Link motion drive feature option available
- Moving bolsters exiting in front/rear or left/right available
- Pneumatic die cushions available
- Various automations for parts handling by industrial robots, de-stacker, 3-axis servo transfer, manipulations, palletizers/racking system available
- **Specifications of the press can be customized per customer requirement**

SX2 Series, Straightside Tie Rod Frame, 2-Point Crankshaft Drive Presses

	SX2 SERIES	
Capacity	400-1,200 metric ton	440 - 1,320 US ton
Rating Point	6-13 mm	0.23 - 0.50 in
Stroke Length	300-450 mm	12-18 in
Speed Range at Full Tonnage	10 - 60 SPM	
Dieheight (SDAU)	600 - 1,000 mm	23-40 in
Slide Adjustment	150 - 250 mm	6 - 10 in
Area of Slide / Bolster	2,500 x 1,300 - 5,500 x 1,550 mm	98 x 51 - 216 x 71 in

SE2 Series, Straightside Tie Rod Frame, 2-Point Eccentric Gear Drive Presses

	SE2 SERIES	
Capacity	300-1,200 metric ton	330 - 1,320 US ton
Rating Point	8 - 13 mm	0.30 - 0.50 in
Stroke Length	500 - 800 mm	20 - 32 in
Speed Range at Full Tonnage	10 - 20 SPM	
Dieheight (SDAU)	800 - 1,300 mm	32 - 52 in
Slide Adjustment	300 - 600 mm	12 - 24 in
Area of Slide / Bolster	2,1500 x 1,300 - 6,500 x 1,800 mm	85 x 52 - 256 x 71 in

SE4 Series, Straightside Tie Rod Frame, 2-Point Eccentric Gear Drive Presses

	SE4SERIES	
Capacity	400-1,200 metric ton	440 - 1,320 US ton
Rating Point	8 - 13 mm	0.30 - 0.50 in
Stroke Length	500 - 800 mm	20 - 32 in
Speed Range at Full Tonnage	10 - 20 SPM	
Dieheight (SDAU)	800 - 1,300 mm	43 - 52 in
Slide Adjustment	300 - 600 mm	10 - 20 in
Area of Slide / Bolster	2,500 x 2,000 - 6,000 x 2,500 mm	98 x 78 - 236 x 98 in



Installations



**1,000 Ton Automotive Seating Structure
Stamping Line in Mexico**



**800 Ton Knuckle Joint Press with
Automation System for Powder
Forming Application**



**80 Ton Incline Press for
Stamping Washers**



**160 Ton Tandem Press Line for Door Knob
Manufacturer in USA**



600 Ton Press with Front and Back Moving Bolster



110 Ton D-Frame Press with Wintriss Automation Control for Tier 1 Appliance Customer in USA



110 Ton Presses for Residential Construction Industry in USA



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- Lamination
- Container Cupping
- Container End-Conversion
- Container Shell
- Gap/D-Frame

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- Press Tending / Robotics
- Integrated Transfer Systems
- High Speed Servo Feeds
- High Speed Gripper Feeds
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