

# 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 straight sides, and a full complement of tie rod construction straight side 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.

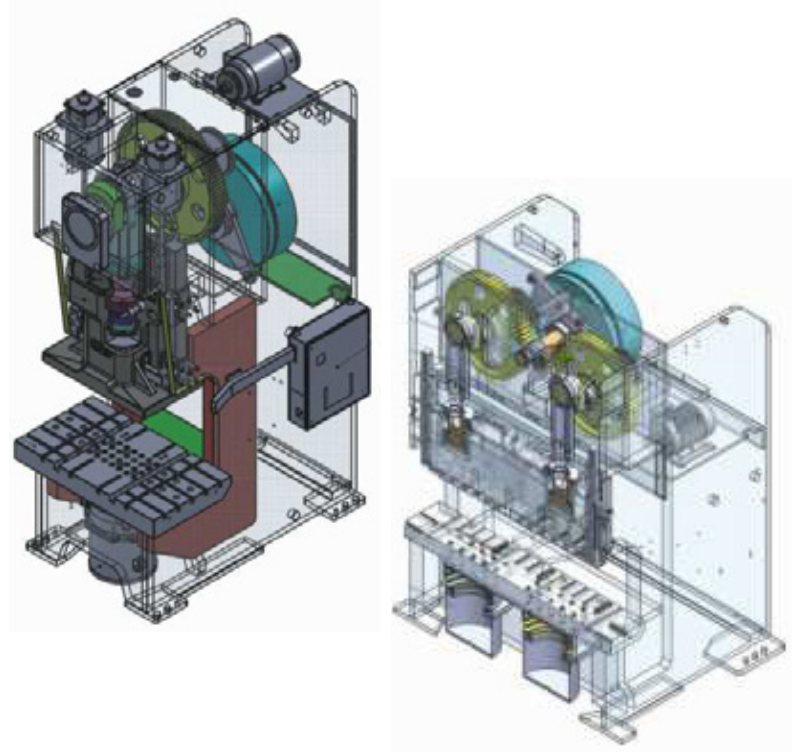
**5** Fast-acting hydraulic overload protection system allows for quick reaction to problems.

**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-gear (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

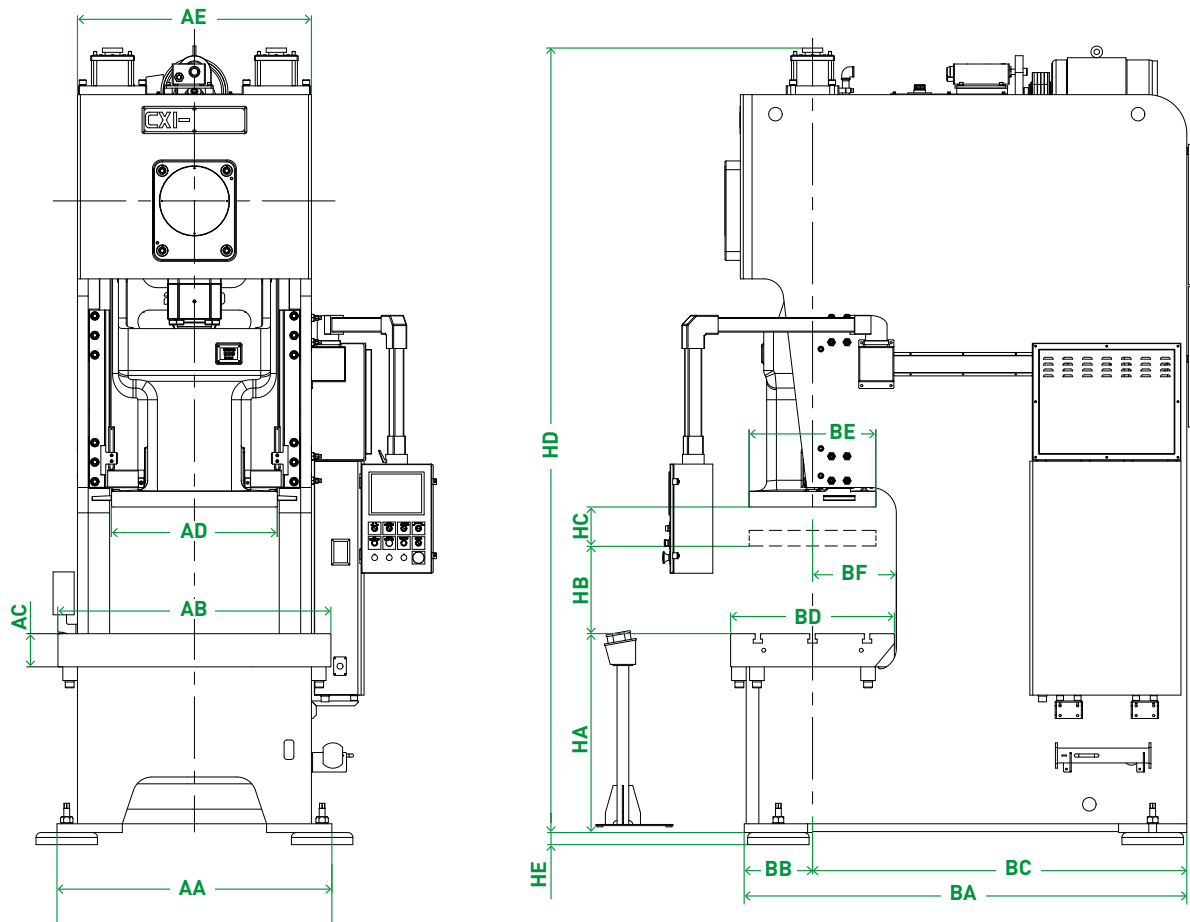


## Specifications & Dimensions CX1 Series

|                                  |     | 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       |      |

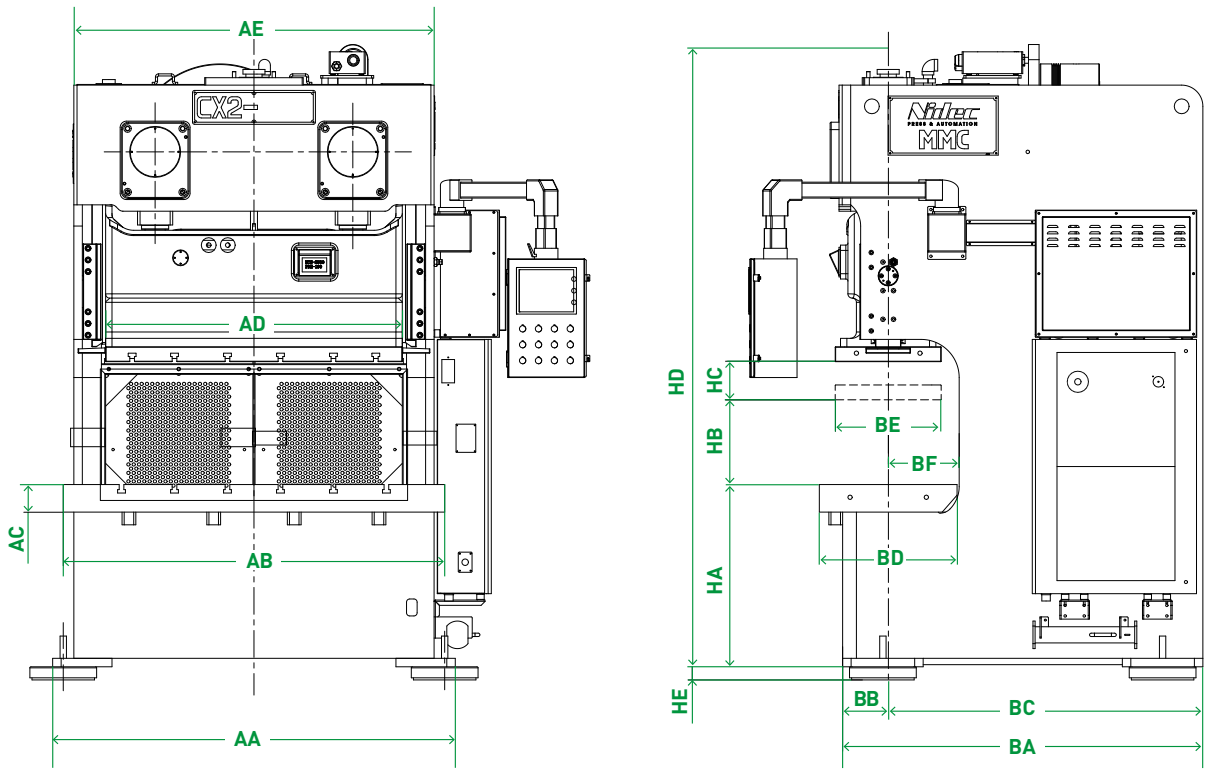
\* Above specifications are subject to change when custom specifications apply.

## 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.

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

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### 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



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### 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

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!

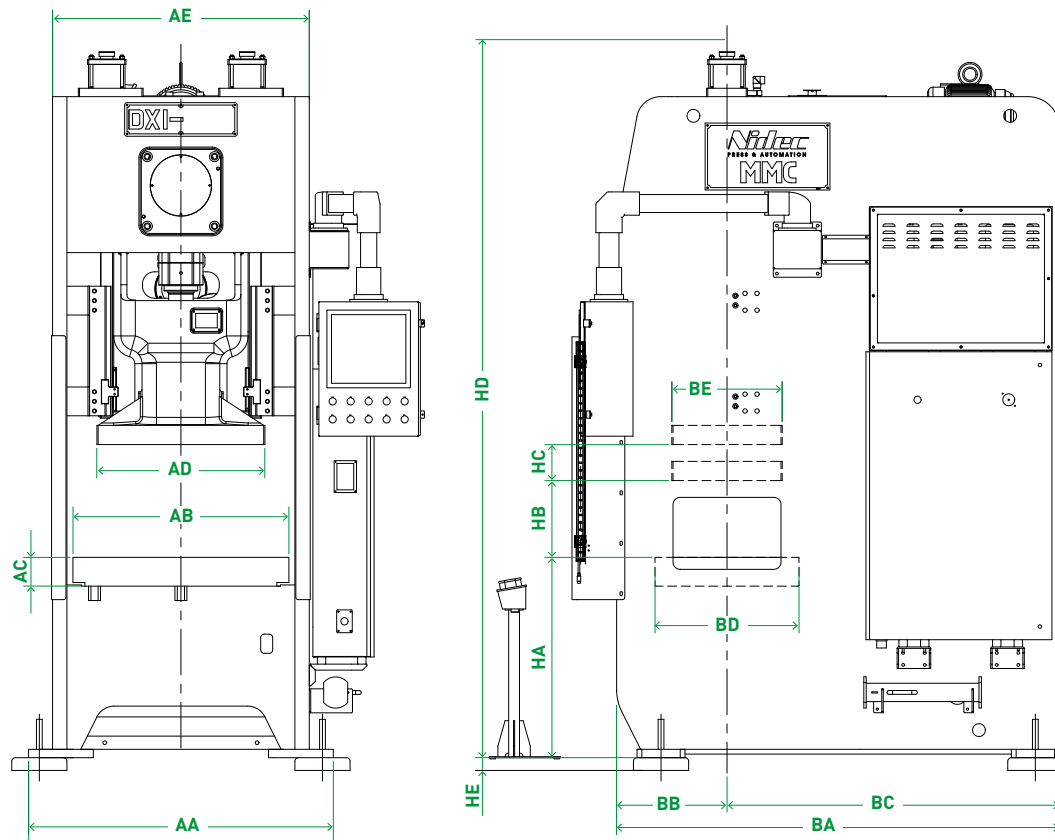
- 8-point slide guiding
- Non-g geared (flywheel-type) drive for higher speed applications
- Recirculating oil lubrication
- Custom stroke and die height
- Custom high-energy drive for tough forming or drawing applications
- Custom slide and bolster dimensions
- Custom controls
- Custom die cushions



|                                       |     | 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.

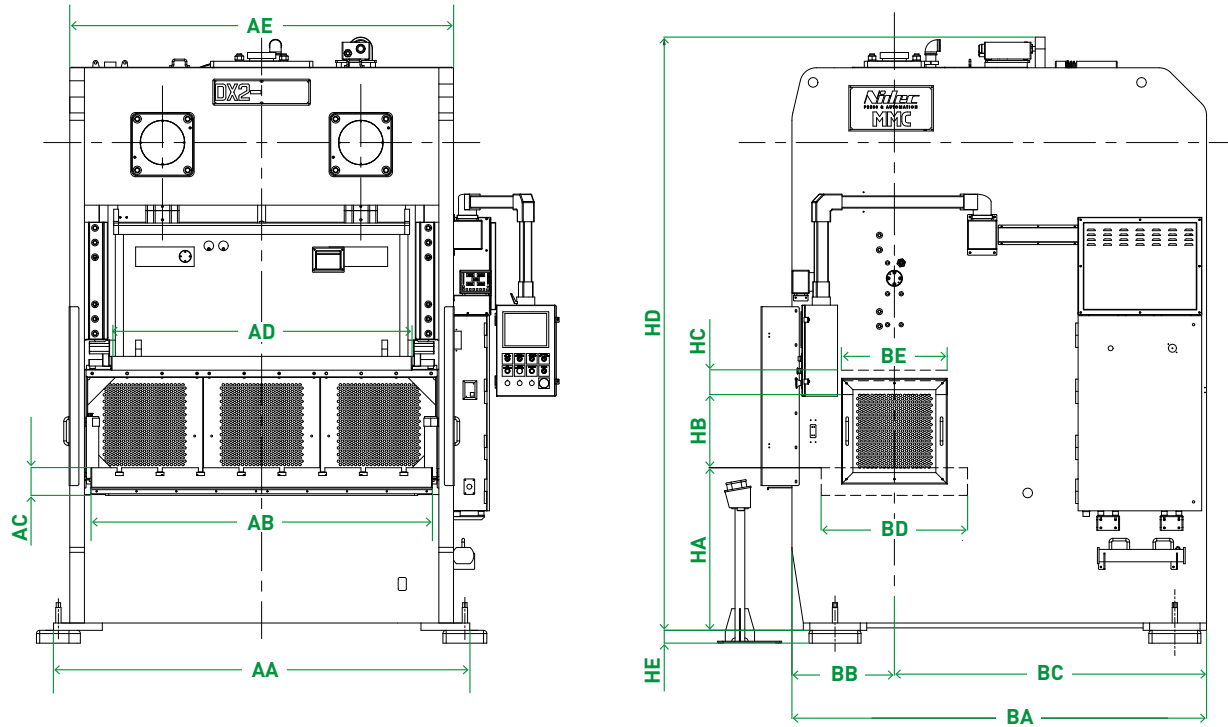
## Specifications & Dimensions DX2 Series

|                                       |     | 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.

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## SX2-G Series Straight Side Unitized Frame Presses 160-400 Metric Tons

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### 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



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### 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                             |       |

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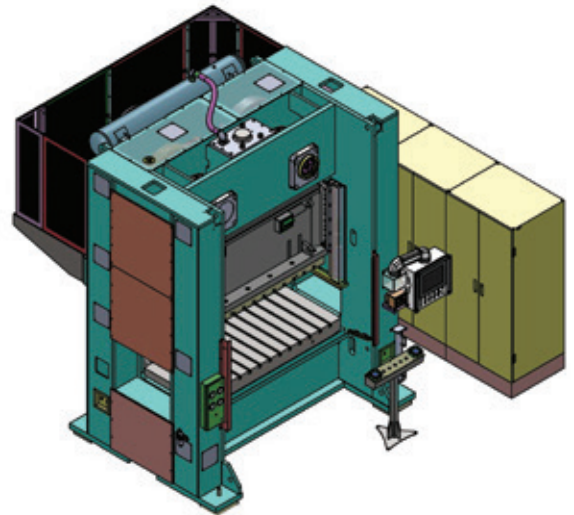
## SX2-G-SV Series Unitized -Frame Servo Press 200-300 Metric Tons

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### 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



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### 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, 4-Point Eccentric Gear Drive Presses

|                             | SE4 SERIES                       |                       |
|-----------------------------|----------------------------------|-----------------------|
| 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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- High Speed Gripper Feeds
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