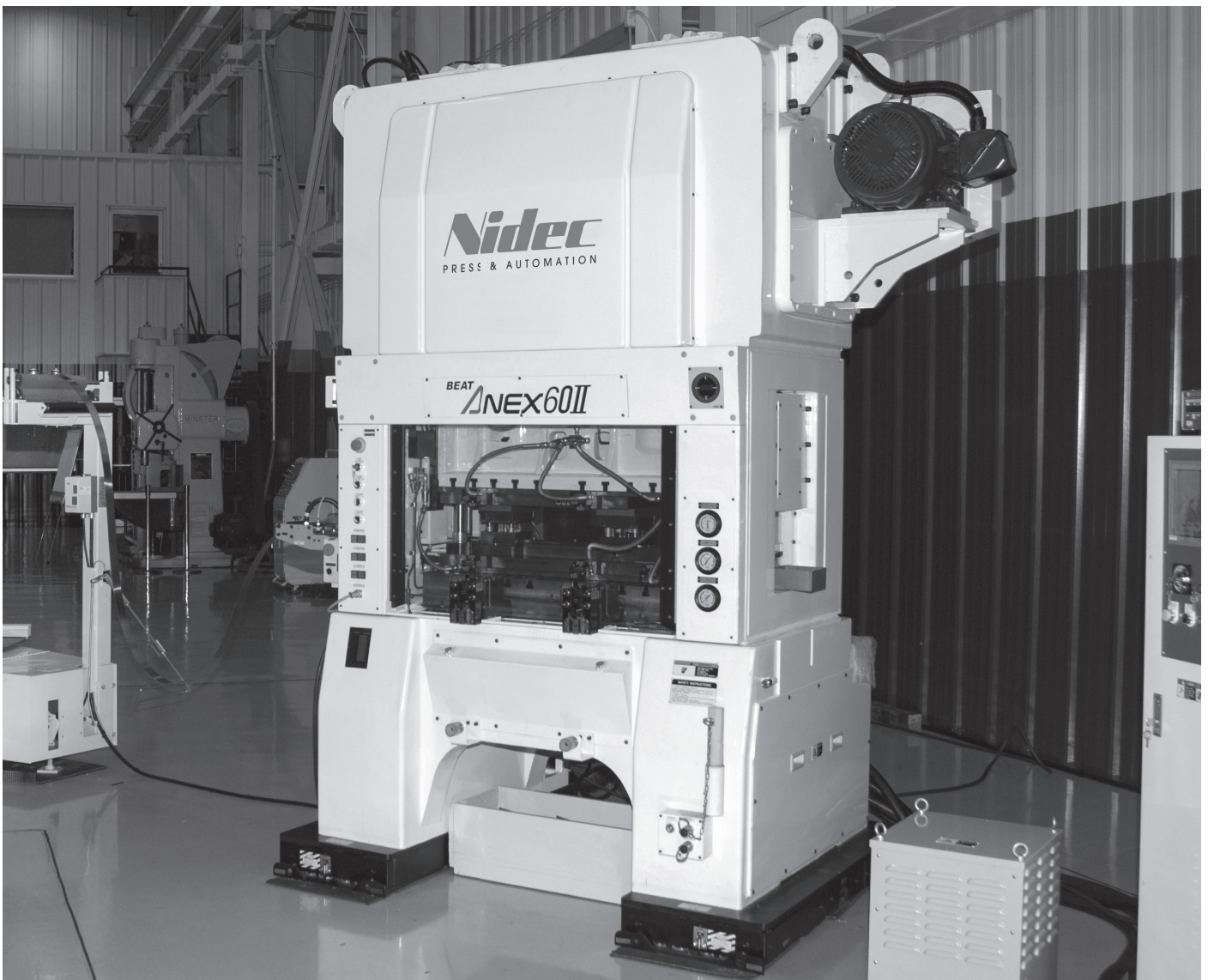


ANEX

High Performance Fixed Stroke Presses

15-150 Tons Capacity

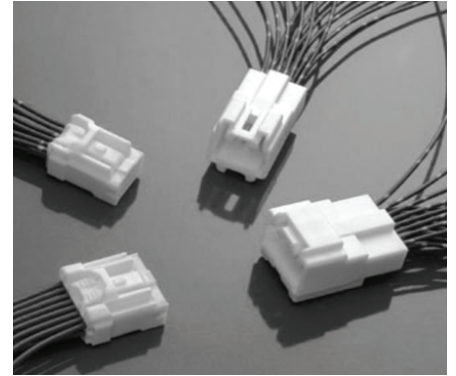
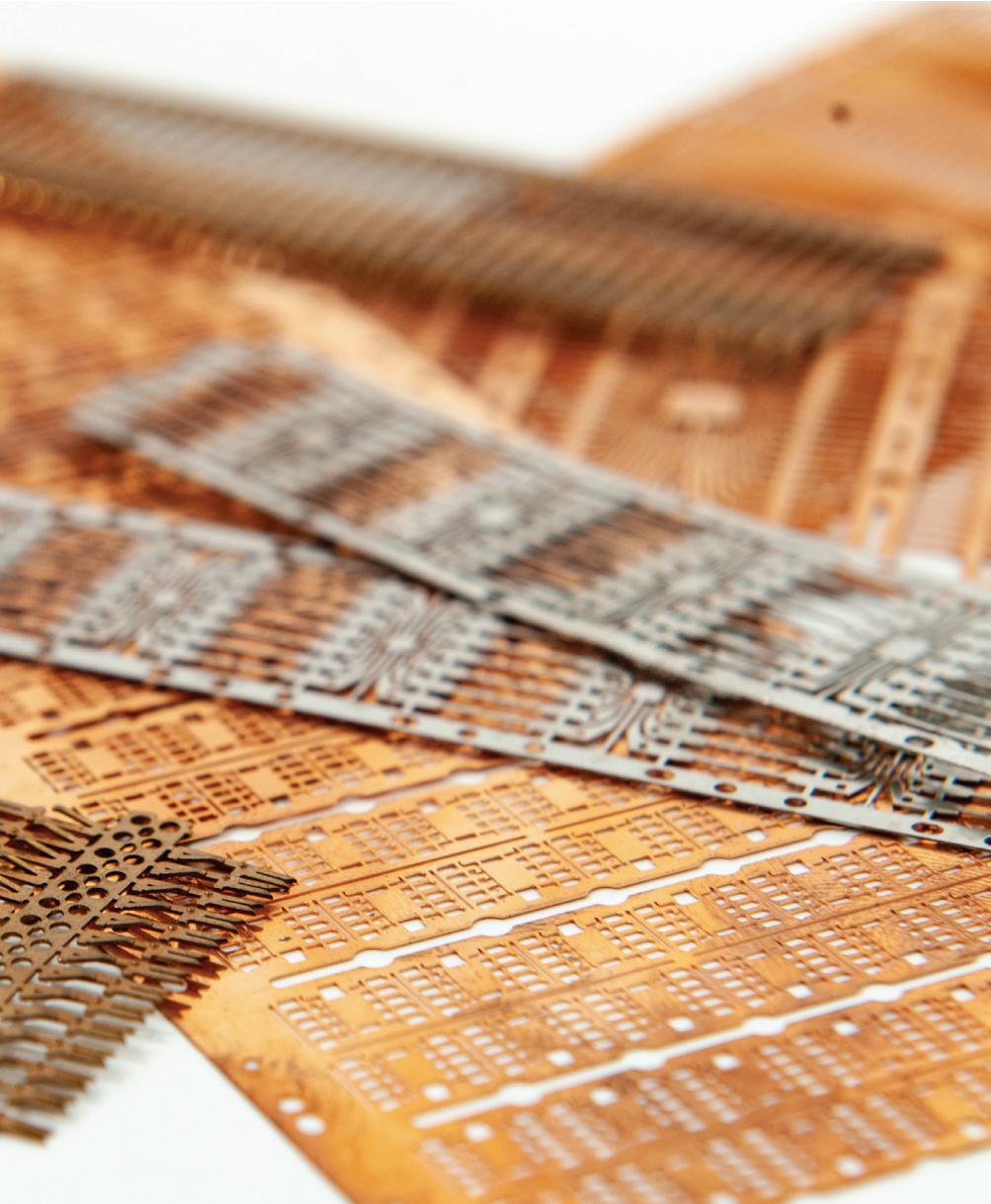


Product Overview

With more than 30 years of expertise in link motion press technology, Kyori's knuckle link presses have earned the reputation for high precision, high performance and ease of operation from users all around the world.



- 1** Consistent accuracy and precision for automated blanking and bending operations.
- 2** Low maintenance costs from the rugged and proven design of more than 4,000 installed presses.



3 Ease of tool set-up and storage from integrated press and feed controls with the Vamco SR series feeds.

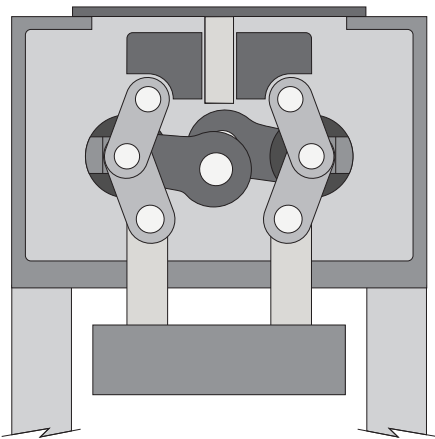
5 No need for thermal or dynamic stroke length compensation mechanisms creating less complicated drive mechanism.

4 Increased tool life and part quality from knuckle link motion creating a slower slide movement through bottom-dead-center.

Standard Features

Symmetrical Link Design

The knuckle link design of the ANEX series presses eliminates thermal displacement resulting in precise bottom-dead-center repeatability. In addition, the design contributes to greater durability, longer die life and reduced noise and vibration.



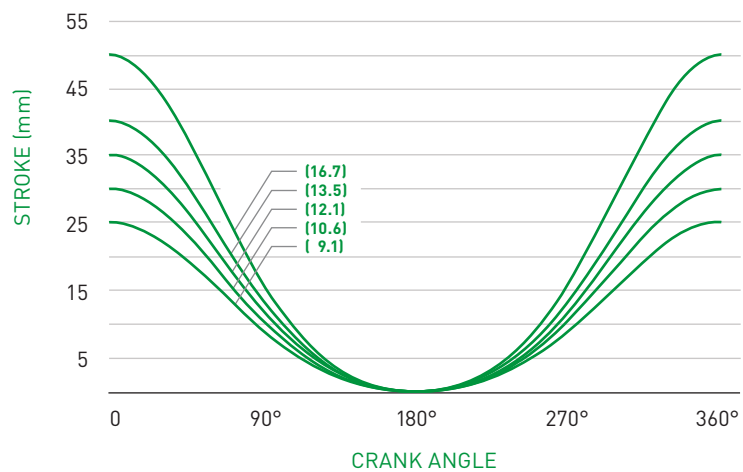
Accurate Slide Guiding

Kyori ANEX presses use 8-point needle bearings for slide guiding as opposed to competitors' post guiding systems. Needle bearings are able to withstand a much larger load and the long guide ways resist off-center loading. The positioning of the guides make them easy to maintain.

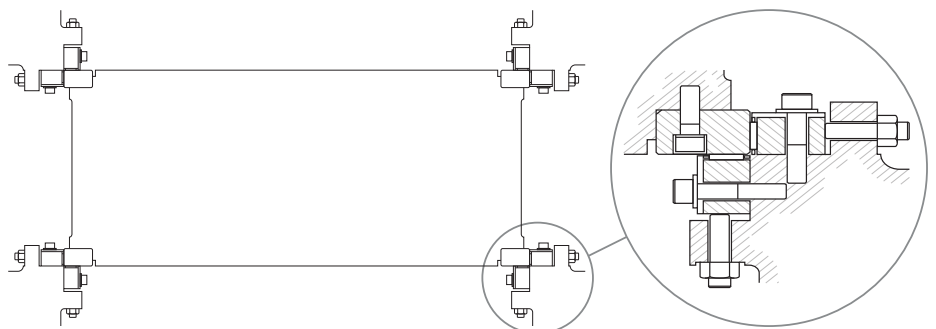
Link Slide Motion

The link slide motion allows for more time on the bottom of the stroke for better part forming and reduced impact of snap-thru forces which extends press and die life. The time between re-sharpening of the dies in an ANEX series press is more than 25% greater than that of a conventional crank press.

Slide Motion

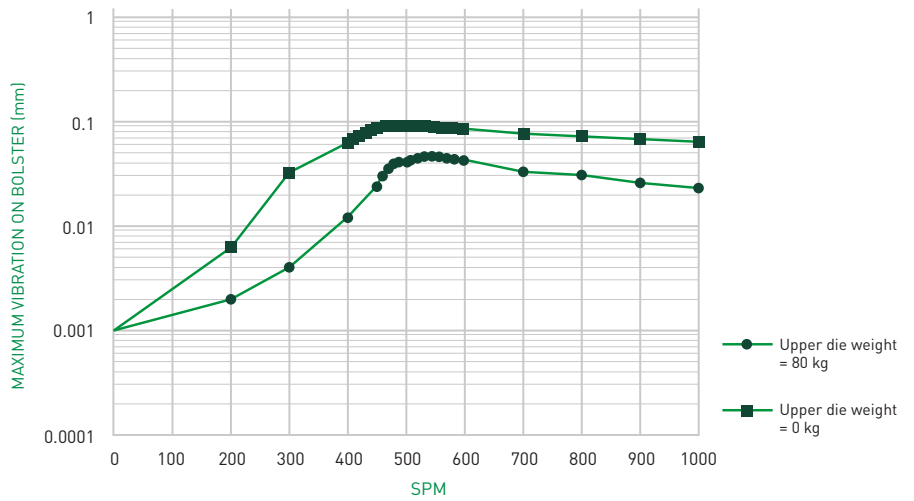


Eight-Point Needle Bearings



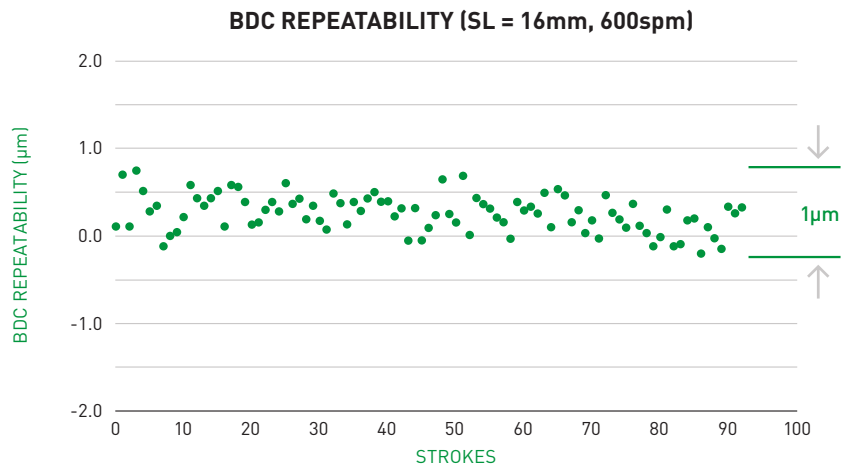
Dynamic Balancer

The dynamic balancer feature allows the press to be operated at full speed with minimal inertial effect. The balancer weight reciprocates as the slide moves downward resulting in perfect balance vertically and horizontally with minimal vibration.



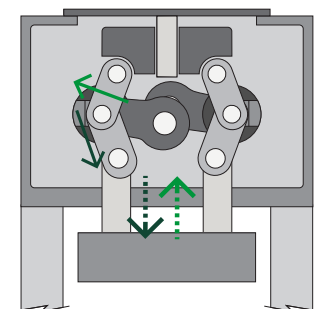
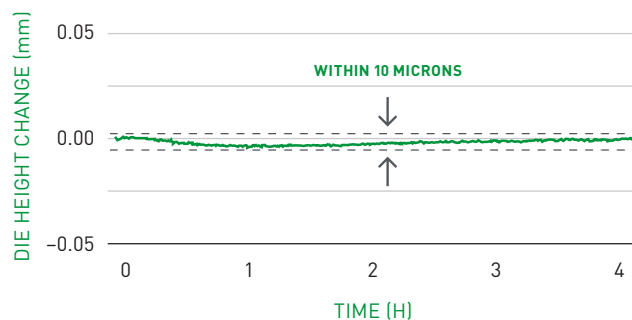
Minimal Shutheight Variation

The extremely simple ANEX knuckle link mechanism consists of large-diameter pins and high-strength links, offering greater rigidity. This high rigidity and precision bearings provide greater bottom-dead-center repeatability.



Heat Generation and Thermal Cancellation

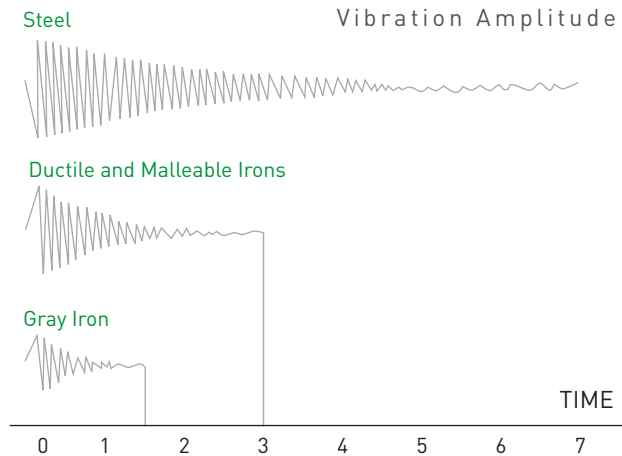
In the conventional crank press mechanism, thermal displacement accumulates caused by the heat generated during operation, and results in fluctuating bottom-dead-center significantly. The design of the ANEX link mechanism offsets thermal displacement and minimizes bottom-dead-center fluctuation even in long time operation.



Standard Features

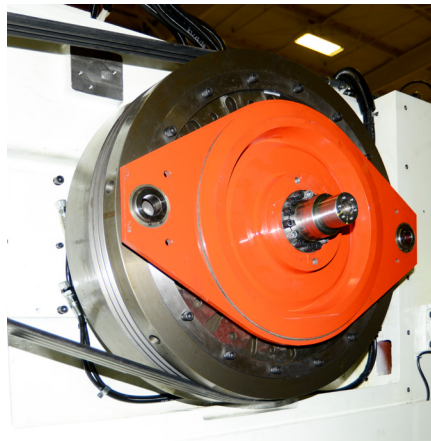
40 Grade Cast Iron Frame Construction

This construction provides the compressive strength and vibration dampening characteristics that provide greater die life and part accuracy. Iron has 2.5 to 4.5 times the dampening capability of steel. Therefore, the ANEX utilizes castings where applicable in its beds, crowns and uprights to dampen vibration and noise created in high vibration and snap-thru applications.



Combination Air Friction Clutch and Brake Unit

One moving member engages the clutch by air pressure or applies the brake by spring pressure. Movement from full brake to complete engagement is approximately 1.59 mm assuring quick, controlled stopping at any speed increasing die life and parts production. Engagement on 360° friction surfaces remains constant throughout the stroke eliminating backlash after stamping and on the upstroke.



Motorized Slide Adjustment

The slide adjustment on the ANEX press is driven by a servo motor and the exact shutheight is displayed on the press console and the repeatability is within 0.01 mm.

Reduced Noise

The reduction of noise is inherent in the construction of the knuckle link mechanism used in Kyori ANEX series presses. The strong shock absorbing bearing structure contributes to the production of less high frequency noise.

Oil Heater/Chiller

To ensure accurate bottom-dead-center repeatability, the unit can be programmed to heat and circulate the oil prior to operation. Once the press is in production mode, the oil is circulated through the chiller to maintain the proper temperature. The temperature is achieved automatically by the press SPM.

Continuous Press Lubrication

The ANEX incorporates a pressurized recirculating oil lubrication system which supplies a continuous flow of filtered oil under pressure to all bearing surfaces ensuring reliable operation.

Main Motor

The inverter-type main drive motor on the ANEX series of presses is variable speed drive providing greater flexibility and higher performance throughout the full speed range, resulting in lower cost to the user.

Die Doors

These standard safety features include pneumatically controlled doors with up and down motion on the front of the press and/or cabinet style doors on the rear.

Micro Inching

Kyori ANEX users can enjoy the feature of full tonnage micro-inching of the press to assist with die set-up and troubleshooting.

Quick Open return

This quick open return function allows die height to move upward automatically at checking die or cleaning, and to return the original position automatically after checking die or cleaning.

Shock Mounts

Isolation/leveling mounts are included as standard equipment on Kyori ANEX series presses.

Additional Standard Features

- End of Stock Detector
- Air Outlet
- Work Lights

Options

Optional Features

- Die Height Detector (4-Channel)
- Air Ejector With DC Solenoid Valve
- Material Holding Cylinder
- Die Clamps (Upper & Lower)
- Die Lift Rails (2 Front, 2 Rear)
- 2-Piece Die Table

Optional Vamco SR Feed Integration

Designed to consistently perform and withstand the vibration of the most severe stamping applications, the SR series is directly mounted to the press and is electronically cammed to the crankshaft ensuring the highest feeding performance.

- Double axis servo feed (feed rolls & pilot release)
- Electronic camming
- Fully-programmable feed & release settings
- Powered upper & lower feed rolls
- Durable cast frame construction
- Advanced monitoring diagnostics
- Push/pull configurations and DHS (3-axis) versions available for increased performance



| | SR-150 | SR-250 |
|--------------------------|----------|----------|
| Material width (max) | 150 mm | 250 mm |
| Material thickness (max) | 2.0 mm | 3.0 mm |
| Feed roll width (std) | 25 mm | 50 mm |
| Feed roll width (max) | 50 mm | 150 mm |
| Indexes/min (max) | 1500/min | 1200/min |

Control Options

Nidec Kyori Mitsubishi Platform Press Control

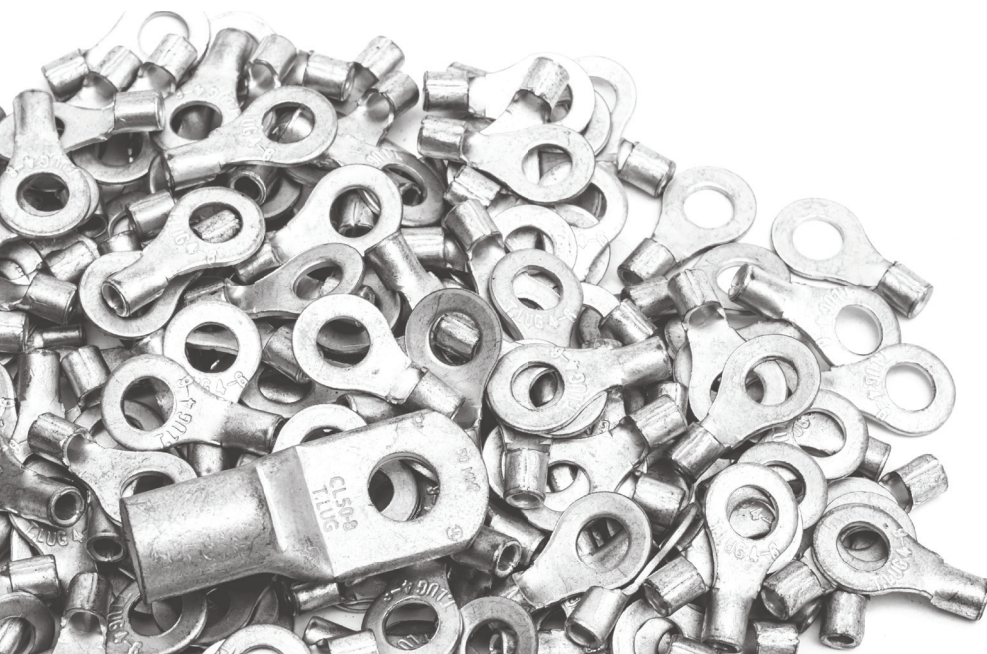
- Proven and robust control
- 10.4" touch panel SVGA
- Fully integrated Vamco SR series feed control
- Speed meter
- Electronic 9-digit total counter and preset counter
- Die height adjustment meter
- Tool parameter storage
- Periodic maintenance announcements
- Fault history
- Automatic control of heater /chiller unit
- UL compliant
- CE compliant
- Separate type operation panel

Nidec Kyori Siemens Platform Basic Press Control

- Developed to meet needs for European customer, CE compliant
- Based off proven functionality of Mitsubishi platform
- 12.1" touch panel SVGA
- Fully integrated Vamco SR series feed control
- Speed meter
- Electronic 9-digit total counter and preset counter
- Die height adjustment meter
- Tool parameter storage
- Periodic maintenance announcements
- Fault history
- Automatic control of heater / chiller unit
- Separate control cabinet and operator console
- Interconnect of die controller and oiler signals
- remote maintenance

NPA Siemens Platform European Press Control

- Newest, highest functioning press control to date
- Created specifically to place communication of specifications and customer support directly in Europe
- 15" touch IPC with ultra-high speed ethernet communication
- Decentralized peripherals with Profinet
- Siemens integrated safety circuit \ with Profinet
- Fully integrated Vamco SR series feed control
- Total counter and (8) preset counters
- Integrated 8 channel digital die protection
- Integrated 4 channel press force monitoring
- Die height adjustment meter
- Periodic maintenance announcements
- Fault history
- Automatic control of heater / chiller unit
- Separate control cabinet and operator console
- Interconnect of die controller and oiler signals
- remote maintenance

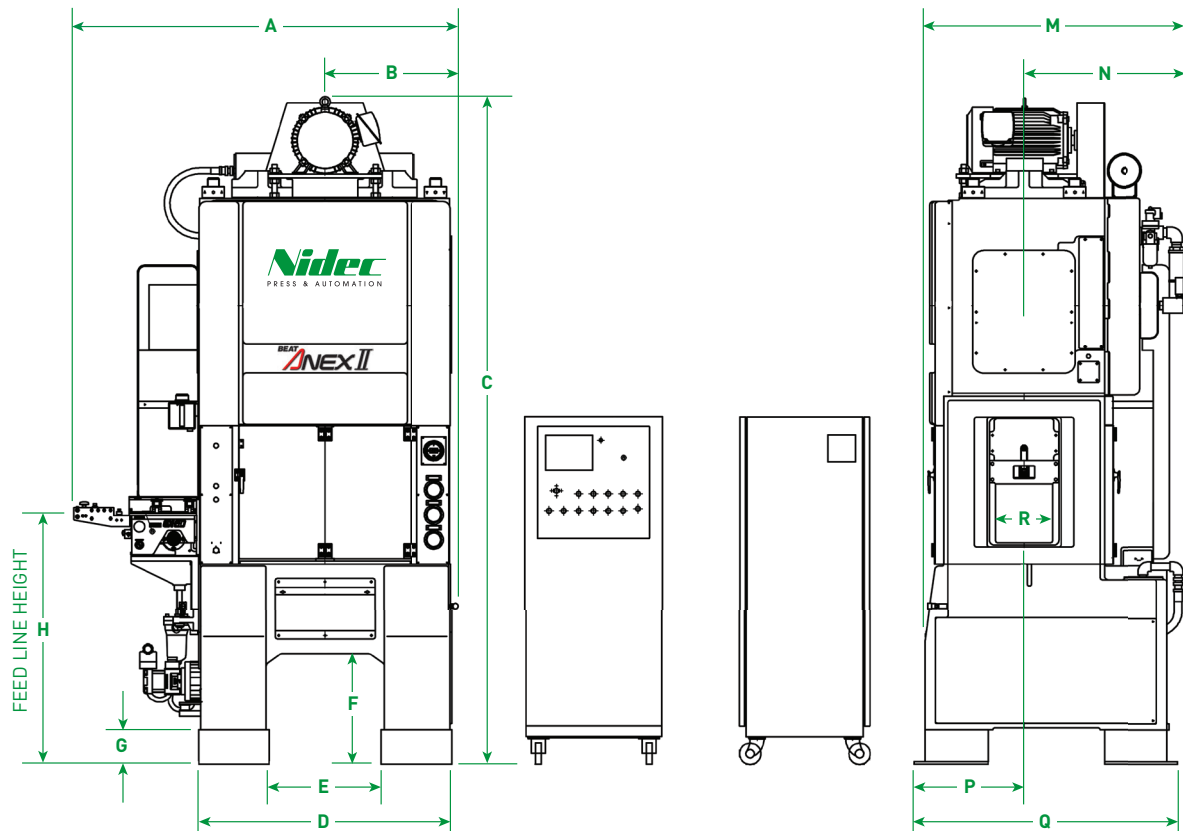


Specifications

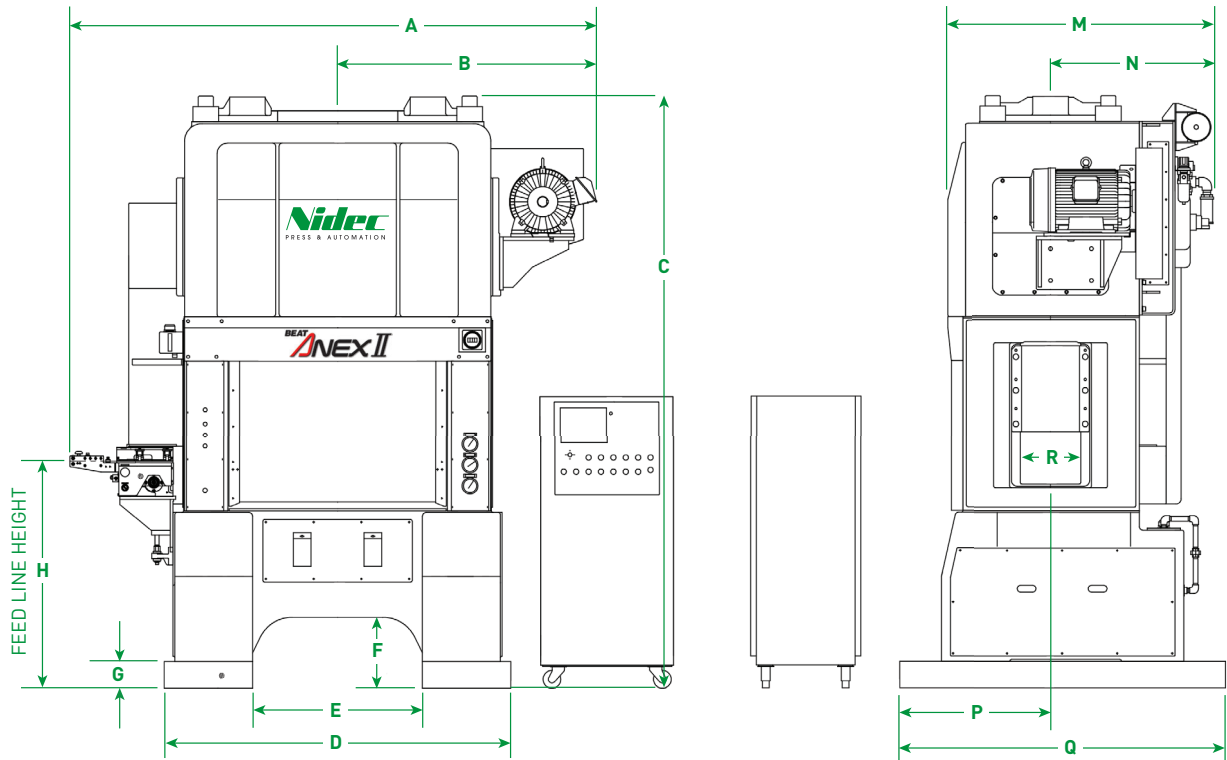
| | | ANEX-15H | ANEX-30II | ANEX-40II | ANEX-40II W |
|-----------------------|-----|-----------------|-------------------|--------------------------|-------------------------|
| Tons Capacity | kN | 150 | 300 | 400 | 400 |
| Stroke Length | mm | 10 | 20/25/32 | 20/25/30/32 | 20/25/32/40 |
| Strokes Per Minute | SPM | 200-1800 (2000) | 200-1200/1050/900 | 180- 1000/900/850/850 | 180- 850/800/700/700 |
| Shutheight | mm | 220 | 240 | 240 | 240/240/240/235 |
| Shutheight Adjustment | mm | 30 | 40 | 50 | 50/50/50/45 |
| Slide Area | mm | 500 x 260 | 600 x 300 | 750 x 340 | 950 x 450 |
| Bolster Area | mm | 500 x 360 | 600 x 400 | 750 x 500 | 950 x 600 |
| Bolster Thickness | mm | 80 | 90 | 120 | 120 |
| Bed Opening | mm | 350 x 50 | 400 x 100 | 560 x 120 | 790 x 120 |
| Bolster Opening | mm | 250 x 40 | 350 x 60 | 500 x 100 | 700 x 100 |
| Main Motor | kw | 15 | 11 | 15 | 18.5 |
| Max. upper die weight | kg | 60 | 80 | 105 / 105-155 | 150 / 150-180 |

| ANEX-60II | ANEX-60II W | ANEX-80II | ANEX-80 W | ANEX-125 | ANEX-150 |
|-----------------|-------------------------|---------------------|-------------|-------------|-------------|
| 600 | 600 | 800 | 800 | 1250 | 1500 |
| 20/25/32 | 25/32/40/45/50 | 20/25/32/36 | 25/32 | 25/36 | 25/36 |
| 100-750/750/650 | 100-700/600/450/400/350 | 120-700/600/550/500 | 120-500/450 | 100-400/350 | 100-400/250 |
| 300 | 340/340/335/325/320 | 320 | 320 | 350 | 350 |
| 80 | 80/80/75/65/60 | 80 | 80 | 80 | 80 |
| 1030 x 500 | 1280 x 500 | 1080 x 580 | 1380 x 580 | 1480 x 600 | 1480 x 600 |
| 1100 x 600 | 1350 x 600 | 1200 x 800 | 1500 x 800 | 1600 x 900 | 1600 x 900 |
| 140 | 140 | 160 | 160 | 180 | 180 |
| 840 x 120 | 1050 x 120 | 900 x 160 | 1200 x 160 | 1300 x 160 | 1300 x 160 |
| 780 x 80 | 1000 x 80 | 860 x 120 | 1160 x 120 | 1260 x 120 | 1260 x 120 |
| 22 | 22 | 30 | 30 | 37 | 37 |
| 450 | 500 | 500 | 500 | 600 | 900 |

Dimensions



| | ANEX-15H | ANEX-30II | ANEX-40II | ANEX-40II W | ANEX-60II |
|---|------------|------------|------------|-------------|------------|
| A | 1510 mm | 1780 mm | 1850 mm | 2050 mm | 2840 mm |
| B | 570 mm | 610 mm | 645 mm | 745 mm | 1420 mm |
| C | 2820 mm | 3075 mm | 3180 mm | 3185 mm | 3080 mm |
| D | 990 mm | 1160 mm | 1200 mm | 1530 mm | 1900 mm |
| E | 420 mm | 520 mm | 530 mm | 521 mm | 900 mm |
| F | 554 mm | 530 mm | 521 mm | 521 mm | 550 mm |
| G | 164 mm | 160 mm | 161 mm | 161 mm | 150 mm |
| H | 1074±20 mm | 1120±20 mm | 1191±20 mm | 1191±20 mm | 1240±20 mm |
| M | 1240 mm | 1315 mm | 1300 mm | 1330 mm | 1490 mm |
| N | 720 mm | 780 mm | 830 mm | 830 mm | 945 mm |
| P | 450 mm | 535 mm | 520 mm | 530 mm | 705 mm |
| Q | 1060 mm | 1210 mm | 1250 mm | 1270 mm | 1540 mm |
| R | 140 mm | 160 mm | 200 mm | 200 mm | 230 mm |



| | ANEX-60II W | ANEX-80II | ANEX-80 W | ANEX-125 | ANEX-150 |
|---|-------------|------------|------------|------------|------------|
| A | 3090 mm | 3000 mm | 3280 mm | 3520 mm | 3520 mm |
| B | 1545 mm | 1470 mm | 1620 mm | 1670 mm | 1670 mm |
| C | 3170 mm | 3380 mm | 3380 mm | 4070 mm | 4230 mm |
| D | 2150 mm | 1960 mm | 2260 mm | 2580 mm | 2880 mm |
| E | 1150 mm | 960 mm | 1260 mm | 1320 mm | 1320 mm |
| F | 550 mm | 400 mm | 400 mm | 515 mm | 520 mm |
| G | 150 mm | 150 mm | 150 mm | 200 mm | 205 mm |
| H | 1240±20 mm | 1280±20 mm | 1280±20 mm | 1630±20 mm | 1635±20 mm |
| M | 1490 mm | 1555 mm | 1560 mm | 1730 mm | 1730 mm |
| N | 945 mm | 970 mm | 970 mm | 1050 mm | 1050 mm |
| P | 705 mm | 855 mm | 820 mm | 825 mm | 935 mm |
| Q | 1540 mm | 1840 mm | 1840 mm | 1780 mm | 2000 mm |
| R | 230 mm | 280 mm | 280 mm | 360 mm | 360 mm |





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