EXCLUSIVE HIGH-SPEED TWIN AC SERVO DIRECT DRIVE TECHNOLOGY

EM NT SERIES

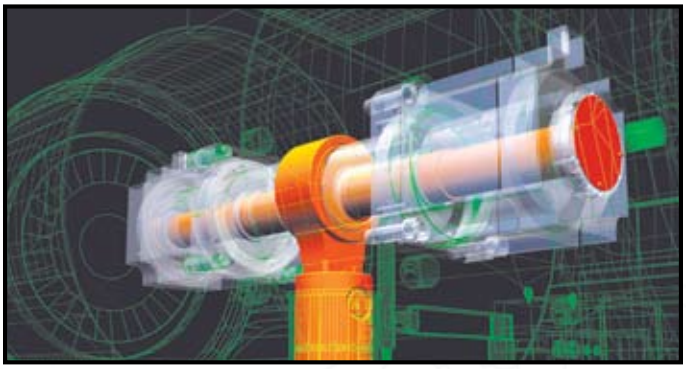
AMADA®

Unmatched Performance Produces Unmatched Results!

AC Servo Driven Technology

The EM starts with Amada's famous bridge-frame design. The increased mass of the side plates provide the stability required for less flex, yaw and twist. The increased rigidity translates directly to longer tool life, faster punching speeds and better part accuracy.

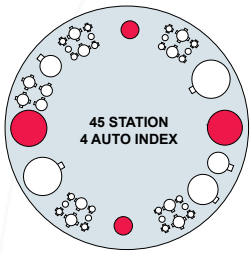
Specifically engineered Twin AC servos, directly coupled to an eccentric shaft, provide high hit rates at the optimum stroke length.



- The highest real-world hit rates and ram positioning accuracy.
- Twin servo drives do not have complex hydraulics and oil-cooling chillers, reducing maintenance and repair costs dramatically over the life of the machine.
- Precision ram motion control (speed, stroke length, hover height and hold time) helps reduce tooling wear and punching noise.
- Lower operating cost: EM technology stores and reuses energy generated during ram deceleration, providing electrical power savings of up to 50% over typical hydraulic machines.

Turret

EM 2510NT



Type	Maximum Size Round	Number of Stations (Keyed)
A	½" (12.7mm)	24 (16)
B	1-¼" (31.7mm)	12 (12)
C	2" (50.8mm)	2 (2)
D	3-½" (88.9mm)	1 (1)
E	4-½" (114.3mm)	2 (2)
Auto Index		
B	1-¼" (31.7mm)	2 (2)
C	2" (50.8mm)	2 (2)

Type	Maximum Size Round	Number of Stations (Keyed)
A	½" (12.7mm)	36 (24)
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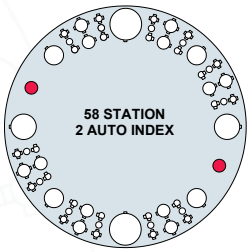

- The EMK 3510NT and EMK 3610NT come standard with Amada's 58-station triple track King turret, which includes two 4-½" and two 1-¼" A/I stations.
- The EM 2510NT comes standard with 45-station turret with two 1-¼" and two 2" auto-index stations. A 58-station turret with two 1-¼" A/I stations is optional.
- Laser hardened turret bores help maintain accurate punch and die alignment.
- Increased feed clearance of 0.984" between upper and lower turret allows a wider range of forming capabilities.

EMK 3510NT / EMK 3610NT

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A	½" (12.7mm)	24 (16)
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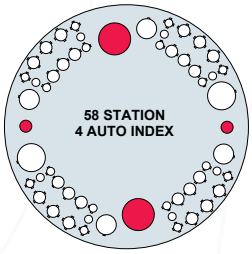
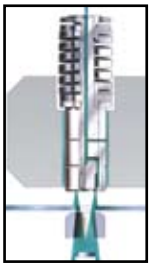


Simple Tool Change

- Punches drop directly into upper turret station.
- Easy change die holders reduce setup by allowing up to three dies to be changed at once.

Air Blow Tooling



The integrated air blow oil mist lubrication system automatically detects the presence of air blow tooling. A precise mixture of air and oil is injected, which helps increase tooling life by up to 5 times, lubricates the turret bores and reduces slug pulling.

Large Brush Table

- Punch full size sheets without repositioning.
- Scratch-free part processing.
- Reduce secondary operations and environment sound levels.
- Support 10 gauge (1/8") sheets on the EM 2510 and 7 gauge (3/16") on the EMK 3510 & 3610.

Power Vacuum Die

- Used in ½" and 1-¼" stations.
- Punch penetration can be reduced from 0.098" to 0.039", resulting in faster speeds and reduced wear.

Sheet Jam Detector

- Automatically detects raised, bowed, or buckled material if workpiece triggers the detection device.
- Machine automatically stops when triggered minimizing broken tools.

Powerful & Easy-To-Use AMNC/PC Controller

Ready to Connect to vFactory®

Intelligent Turret Setup

G-Code Editor Simulator

Scheduler

Ram Control and Tool Stroke Verification

Intelligent Turret Setup

- Change material, clamp positions, tool type, tool angle, tool size and tool location.

G-Code Editor Simulator

- Quickly review, edit and simulate program on the touch screen display.
- Plot G-Code patterns and highlight.
- Pan and zoom functions.

Scheduler

- Specify job order and quantities.
- Check completed part quantities as they are completed.

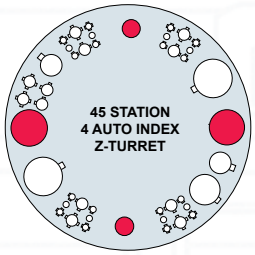
Ram Control and Tool Stroke Verification

- Control speed, depth, hover height and hold time.
- Utilities to calculate punch and die length parameters.
- Perform trial tool hits.

Z Turret

EMK 3510NT / EMK 3610NT

- Lower turret disk larger in diameter than the upper turret.
- Loading station allows tools to be changed quickly.
- No special tools required to extract dies.



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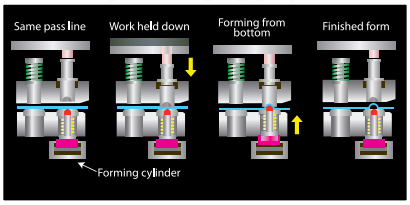
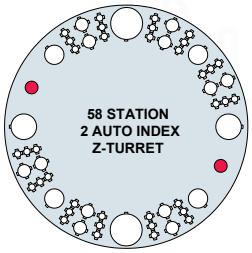
Punch & Form

EMK 3510NT / EMK 3610NT



- Up-acting cylinder raises special forming dies.
- Increase forming height with less deformation.



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Auto Index		
B	1-¼" (31.7mm)	2 (2)

Toggling Brush Table

EMK 3510NT / EMK 3610NT

- Form features to a depth of 0.197"
- Raise and lower brushes during sheet movement.

Work Chute

EMK 3510NT / EMK 3610NT

- Large, fast acting (4 second cycle).
- 19.68" x 19.68"
- A powered roller ensures all parts drop through.

Automation

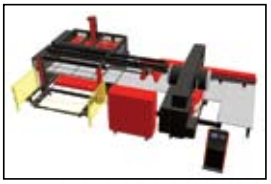
EM 2510NT / EMK 3510NT / EMK 3610NT

ASR/MJC

An innovative part separation system combining rear material loading and part storage with a unique micro-joint cutting (MJC) device. The micro-joint cutter separates parts from the skeleton, storing them separately, while the punch press continues to produce parts.

ASR 510M

Flexibility to produce smaller lot sizes in a variety of material types and thickness is provided by the additional shelves of the ASR material tower. The greater material capacity of the tower can extend unattended operation to multiple shifts. The ASR is ideal for lights-out operation in a lean environment.



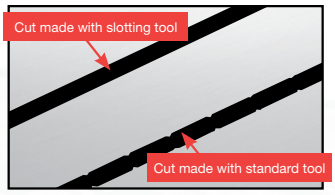
MP/RMP

The MP single shelf loader automates the handling of small or large sheets and facilitates unmanned operation of the EM. The shelves on the MP can be retracted to allow manual loading of material. The MP is available in 4'x8' and 5'x10' models. The RMP is the latest configuration added to the product line.

PR/UL

Automatically remove, sort, and stack parts; eliminating the need for micro-joints. The last hit of the part perimeter frees the part from the skeleton and vacuum cups on the PR removes the part from the machine table and places it in a pre-programmed location on a skid. The skeleton is removed and placed on a separate skid.

Productivity-Enhancing Tooling Reduces Secondary Processing

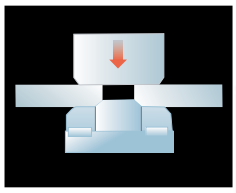


Slotting Tool

This unique tool allows continuous material parting without the overlap marks associated with conventional parting tools. The Slotting Tool provides outstanding edge quality for cosmetic-sensitive parts and reduces secondary edge clean-up. The 4-½" station design is available in the Sheet Saver configuration. With clamp relief on both sides of the punch and die, clamp dead zone is minimized and material utilization is increased.

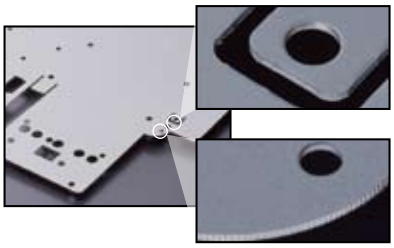
Small Parts Removal Tool

Designed to separate small parts from the work sheet and deposit them through the slug chute. This process can eliminate the need for micro-joints and manual part separation after punching.



Deburring Tool

Deburr parts quickly within the turret! The burred edge of the punched part is pressed flat, making many secondary deburring operations unnecessary. This process can be applied to straight and curved as well as external and internal edges.



Contouring Tool

The specially designed contour tool allows nibbling at pitches less than material thickness resulting in smooth edges and reduced clean up. Its ability to process almost any geometry reduces the need for special tooling.

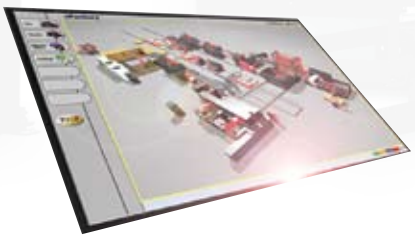
Safety Inch Bend Tool

Short flanges can be formed safely where processing on the press brake may not be possible. For a 2" station, minimum flanges of 3 times material thickness to a maximum of 1.378" can be achieved. This size tool can form a maximum bend length of 1.181" in material ranging from 0.0020" to 0.63" thickness (CRS, aluminum and stainless steel).

High-Speed Marking Tool

With the EM's ability to mark at up to 1800 hits per minute, the marking of part numbers, manufacturing dates, bend lines and symbols now becomes practical. Add value to punched parts without adding secondary operations. Tools are available to mark the top or the bottom of the part.

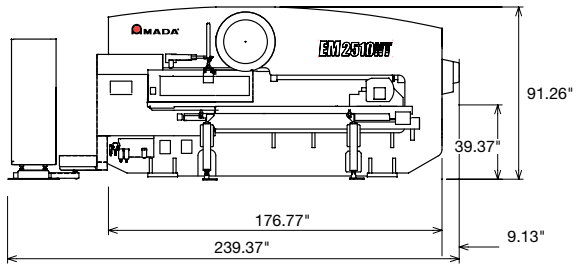
vFactory®

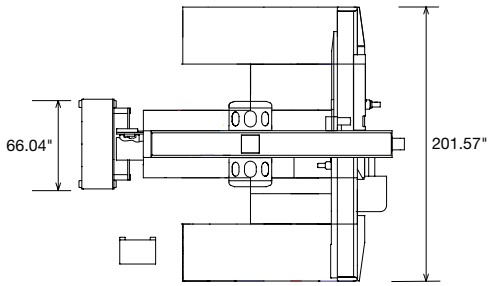


- Monitor machine utilization and program status from any PC connected to your intranet.
- Benchmark current performance of machinery and programs.
- Measure effects of management changes on green-light ontime.
- Monitor consumables and preventative maintenance.

Dimensions

EM 2510NT





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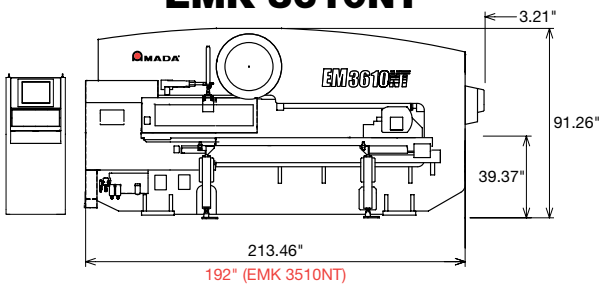
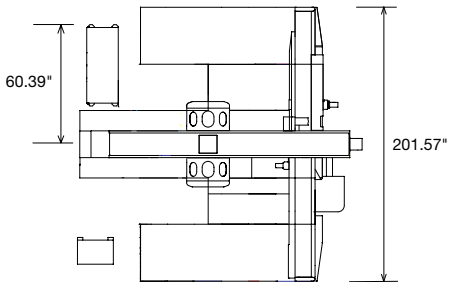
EMK 3510NT
EMK 3610NT





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EMK 3510NT and EMK 3610NT offer the same dimensions except for the overall length indicated in red.

Specifications

Model	EM 2510NT	EMK 3510NT	EMK 3610NT
Press Capacity	22 Tons	33 Tons	33 Tons
Axis Travel	X: 98.425", Y:50"	X: 98.425", Y:50"	X: 98.425", Y:60"
Max. Sheet Size	X: 196.85", Y:50"	X: 196.85", Y:50"	X: 196.85", Y:60"
Max. Sheet Weight	110 lbs. (F1) / 330 lbs. (F4)	110 lbs. (F1) / 330 lbs. (F4)	110 lbs. (F1) / 330 lbs. (F4)
Feed Clearance	0.984"	0.984"	0.984"
Stroke Length	1.45"	1.45"	1.45"
Max. Sheet Thickness	0.135"	0.187"	0.187"
Punching Accuracy	+/- 0.004" (+/- 0.0027" High Accuracy Mode)	+/- 0.004" (+/- 0.0027" High Accuracy Mode)	+/- 0.004" (+/- 0.0027" High Accuracy Mode)
Table Positioning Speed	X: 3937 IPM, Y: 3150 IPM	X: 3937 IPM, Y: 3150 IPM	X: 3937 IPM, Y: 3150 IPM
Turret Rotation Speed	30 rpm	30 rpm	30 rpm
Hit Rate 1" Pitch (0.197 stroke)	X: 500 HPM, Y: 330 HPM	X: 500 HPM, Y: 330 HPM	X: 500 HPM, Y: 330 HPM
Hit Rate 0.039" Pitch (0.197 stroke)	X: 780 HPM, Y: 515 HPM	X: 780 HPM, Y: 515 HPM	X: 780 HPM, Y: 515 HPM
Hit Rate Marking (0.055 stroke)	X: 1800 HPM, Y: 830 HPM	X: 1800 HPM, Y: 830 HPM	X: 1800 HPM, Y: 830 HPM
Electric Power Required	AC200V 3-Phase 50/60Hz, 22kVA	AC200V 3-Phase 50/60Hz, 27kVA	AC200V 3-Phase 50/60Hz, 27kVA
Machine Weight	39,683 lbs.	52,000 lbs.	54,000 lbs.

AMADA®

Amada America, Inc.

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