

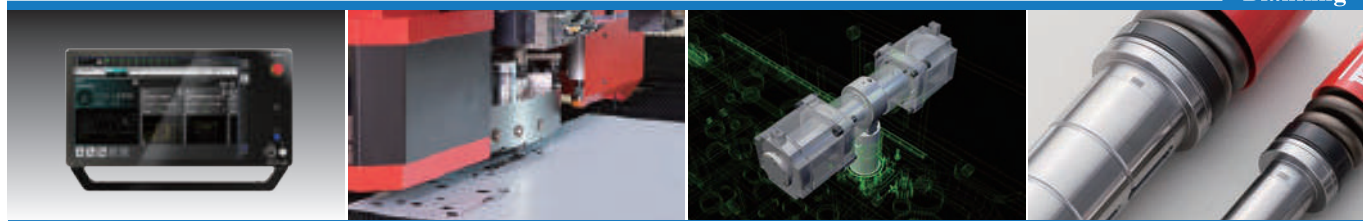
SOLUTION



AC servo direct twin drive NCT **EM M II** SERIES

EM-255M IIe/EM-2510M IIe/EM-2612M IIe/EMZ-3510M IIe/EMZ-3612M IIe/EMK-3510M IIe/EMK-3612M IIe

Blanking



あける

曲げる

切る

成形する

The Engineering AMADA

研

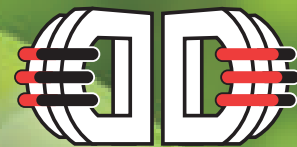


EM Series, the best selling machine worldwide

The decarbonized society is rediscovering its potential appeal.

The EM Series, equipped with the unique AC servo direct twin drive system, is now attracting interest again as a machine that can both realize a sustainable society and benefit customers!

Experience the power realized with the EM's minimal energy, high speed, high precision machining & process integration.



AC servo direct twin drive

Machines with AC servo direct twin drives are marked with the DD symbol.



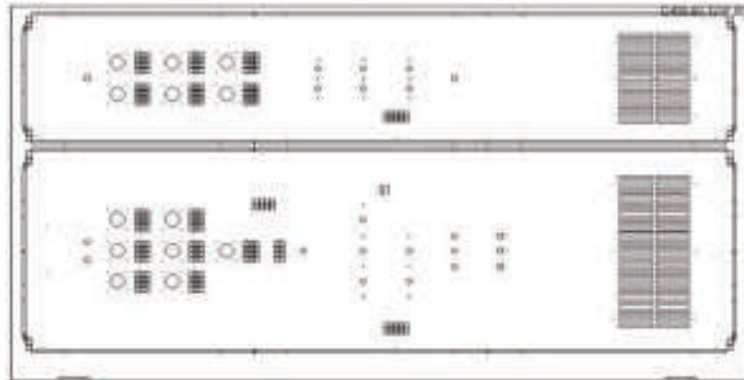
Z turret (30 ton selectable) offers easier and more reliable tool changes, resulting in a significant increase in operating time.

New AC servo direct twin drive NCT

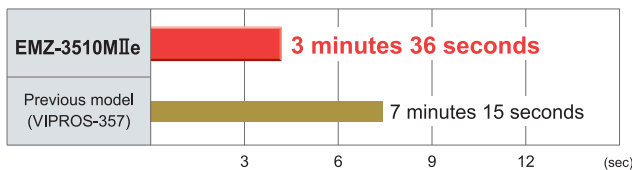
EM MII SERIES

Processing examples with sample workpieces

Material: SECC 2.3 mm
 Size : 2438×1219 mm
 Number of tools used: 9 (form, tapped)
 Processing features: **shortening of processing time, energy saving and cost reduction**



Comparison of processing time 50% reduction in time



Comparison of electricity costs 57% reduction

Processing machine	NCT body	Compressor	Total
EMZ-MIIe	6.8	6.6	13.4 yen
Previous model (VIPROS-357)	23.8	7.3	31.1 yen

*Electricity 20 yen /kWh

Electricity bill 0.57 saving

Comparison of annual electricity costs when processing the same amount with VIPROS-375 and EM-3510MIIe

With **VIPROS-375**, 60 sheets (3228 kg) can be processed in **8 hours and 15 minutes** per day (L-UL time is estimated as 1 minute).
 With **EM-3510MIIe**, processing of the same amount is completed in **4 hours and 36 minutes**.

Assuming this continues for 21 days/month x 12 months, **a savings of 368,172 yen in electricity costs per year!**

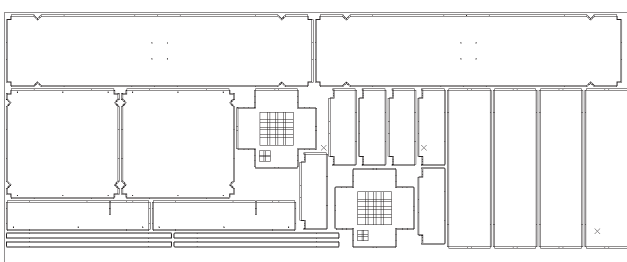
Converted to CO₂ emissions, **8229 kilograms per year**

Based on the amount of carbon dioxide cedar trees absorb each year, this equates to **about 600 fewer cedar trees**.

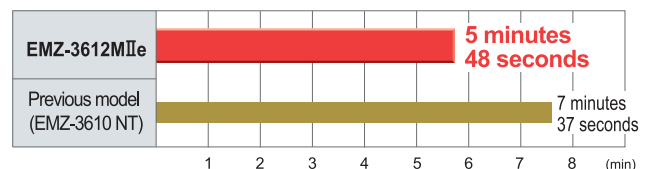


Savings of 7 hours/48 minutes/38 days → Customer profit expansion

Material: SECC 1.0 mm
 Size : 3050×1219 mm
 Number of tools used: 11 (form, tapped)
 Features of processing: **5'x10' material 1 clamp processing**



Comparison of processing time 24% reduction



EM-MIIe Series New Technologies

1 Energy saving, high speed and stable processing

Eco&Power AC servo direct twin drive

The **AC servo direct twin drive** combines the features of both the mechanical type that performs high speed processing with its inherent power and the hydraulic type that produces high precision processing through hydraulic control. This drive system is energy saving, oil-free, and low-noise, making it suitable for a sustainable society.

Braking energy during ram control is recovered and stored in a capacitor.

A **power leveling energy-saving circuit** that reuses this energy during ram acceleration to realize energy saving processing.



EM-2510MIIe

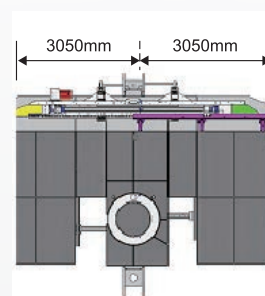


EMZ-3510MIIe



1-clamp punch and tapping of 5'×10' material

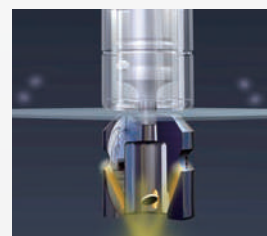
The X-axis travel of 3050 mm (in the case of EM-3612ZRTe/EM-3612ZRBe) enables high speed, stable punching, forming, and tapping of 5' x 10' material without having to reposition. It also reduces complicated work on the program.



Realizes stable, high speed processing with reduced slug pull

1 Power vacuum system to prevent slug pulling in small diameters (standard)

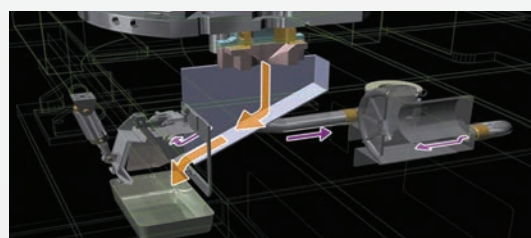
A power vacuum system in which powerful air is injected in the downward direction of the inside of the die to suck the exhaust gas to the lower part.



2 Large-diameter slug pull prevention by slug suction unit (option)

Vacuum discharges the extracted shavings into the scrap box, preventing shavings from rising up.

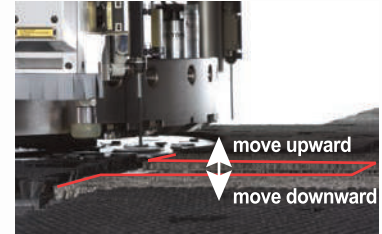
*Cannot be selected simultaneously with P&F.



2 High quality process integration

Floating brush table for scratch-less forming

The brush table around the turret is raised during material movement after the downward forming process to prevent the formed part from interfering with the die. This realizes the process integration of downward forming, tapping, etc., which was difficult in the past.



MPT tapping unit

Equipped with a tapping unit in the turret. The range of punching and tapping is common, reducing program time and processing time.

*Compatible with M2.5~M8
*Can be used for cutting and rolling taps

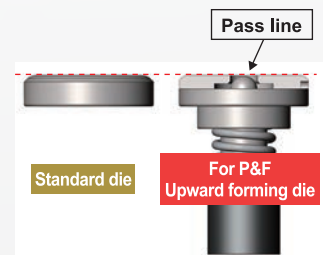
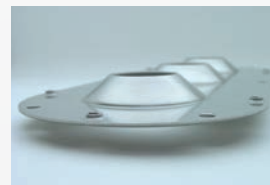


Incorporation of post-processing using tools

<p>MPT tap tool</p>  <p>Punching あける</p>	<p>ARFT ball chamfer</p>  <p>Forming 成形する</p> <p>NOTE) Optional roller tool software is required.</p>	<p>T-UpII tool (Positioning tool)</p>  <p>Forming 成形する</p>	<p>ARFT marking tool (Positioning die)</p>  <p>Laser marking 描く</p> <p>NOTE) Optional roller tool software is required.</p>
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P&F (option) for upward forming and reducing back scratches

The punch holds the plate and the forming cylinder raises the forming die to achieve high quality forming without distortion in the same pass line as the punch. This reduces back scratches and coil breaking.



Reduce setup time with clamp positioner (option)

Clamps are automatically positioned as programmed to allow for long, continuous automatic operation.

- Models compatible with two clamp specifications
EM-2510MIIe
- Models compatible with three clamp specifications
EMZ(K)-3510MIIe/ EMZ(K)-3612MIIe



EM-MIIe Series New Technologies

3 ID tooling system

Digital control of quality with ID tools

Prevent tool mounting errors

Useful information for tool setup is displayed on NC and ID tool monitors to improve workability and shorten setup time.

Digital control of tools

Compatible with advanced tooling solutions and ID tooling systems.

By constantly checking the ID information of actual die usage, edge wear can be predicted and stable tool conditions can be maintained, thereby stabilizing processing quality.

*ID readers and ID monitors (separately installed) are optional.



4 Linking machines with customers

AMNC 4ie

The new AMNC 4ie NC system is developed based on the concept of the "4 e's" to address the key issues in sustainability, namely "human issues" and "environmental issues." In addition to controlling machines and peripheral devices, the AMNC 4ie has enhanced interface functions to connect customers and machines.



Easy operation for anyone to use
Easy

Efficiency in remote operation from anywhere
Efficiency

Environmental sustainability in production
Environmental

Evolution together with our customers
Evolution



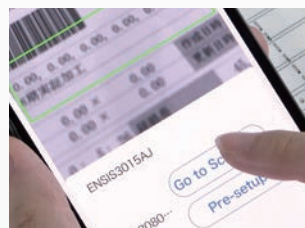
Facial recognition

Language and screen display can be switched. (setting is required in advance)



Startup inspection guidance

Navigation video that allows anyone to perform startup inspections according to the procedures. Management and sharing of inspection history.



Mobile HMI

Notification of remote start/end prediction/completion using mobile HMI.



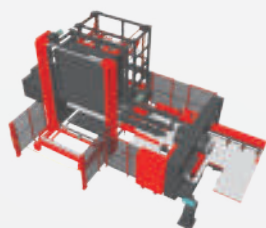
CO₂ emission reporting function

CO₂ emissions are measured for each component, and reports can be created and filed.

5 Automation

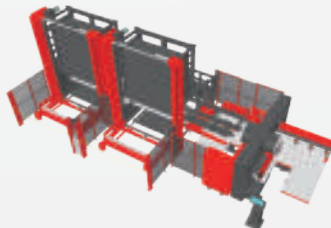
Space saving

The single sheet pick-up device in the tower allows flexible scheduling regardless of material thickness and types.



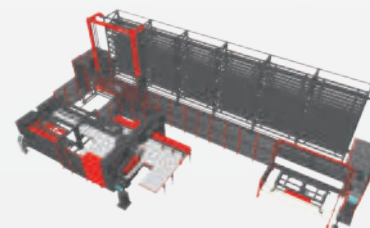
2 tower specifications (material and product tower)

The two tower specification of material, product and skeleton tower enables continuous operation of multiple materials and products.



Automatic warehouse connection specification

Continuous operation is realized by connecting automatic warehouses. Efficient layout is possible according to the customer's installation space and height.



6 V-factory

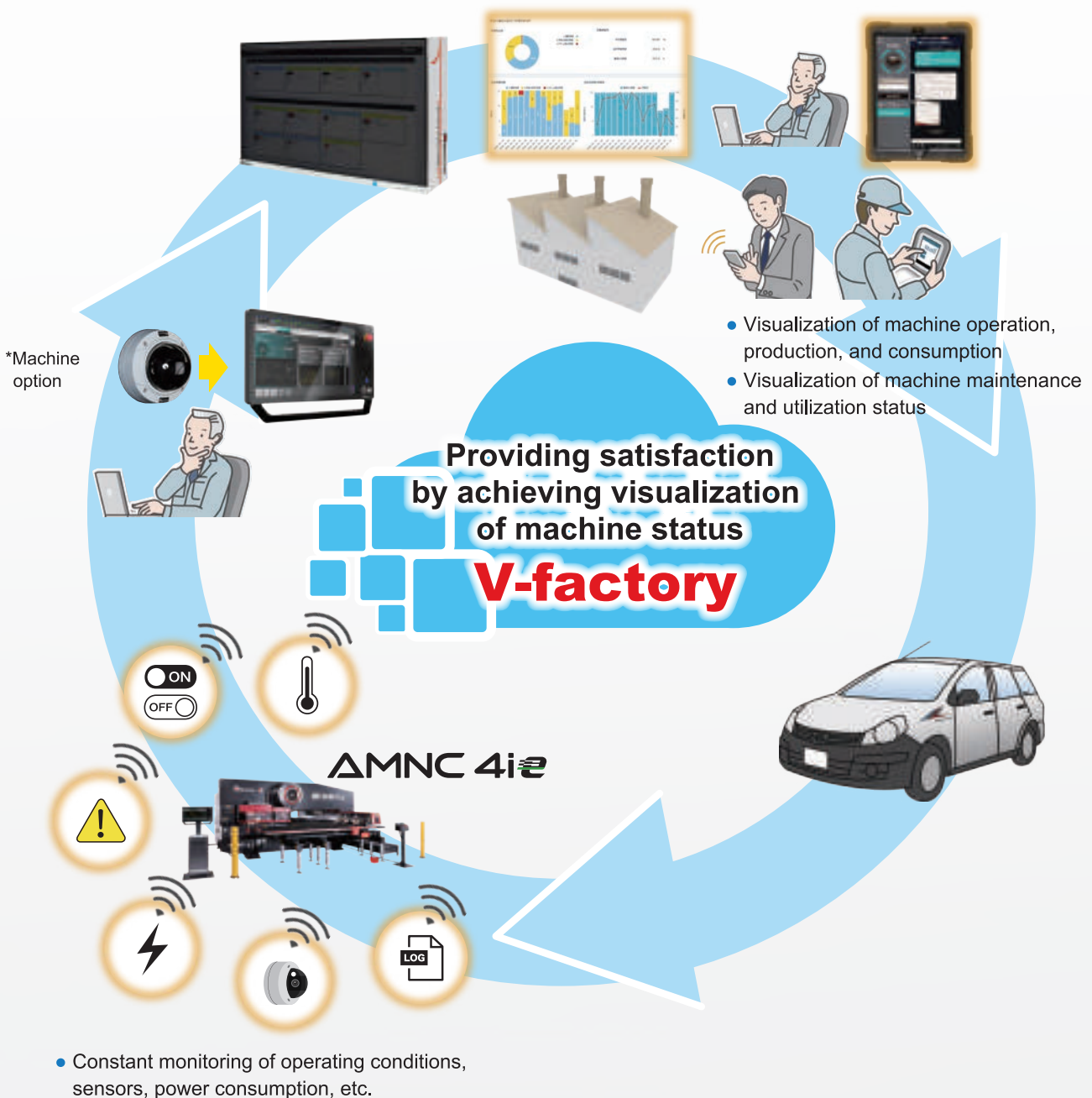
Amada's recommended V-factory is based on the concept of "creating profits for customers". V-factory will co-create factory reforms with customers by providing visualization, taking advantage of IoT technology and maximizing machine utilization.

V-factory Connecting Box

Used to connect machines to the cloud and start V-factory.

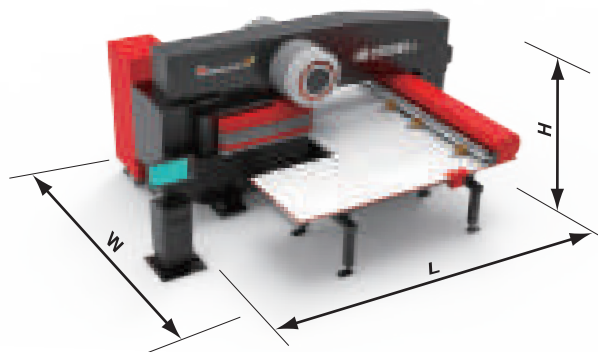
V-monitor *

Automatically records the state of the machine during automatic operation.



Dimensions

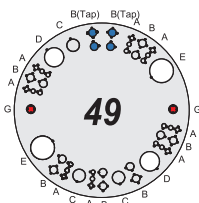
- EMZ-3612MIIe, EMK-3612MIIe
(L : 5442 x W : 6220 x H : 2317)
- EMZ-3510MIIe, EMK-3510MIIe
(L : 4997 x W : 5120 x H : 2317)
- EM-2612MIIe
(L : 5422 x W : 6220 x H : 2317)
- EM-2510MIIe
(L : 4877 x W : 5120 x H : 2317)
- EM-255MIIe
(L : 4877 x W : 2840 x H : 2317)



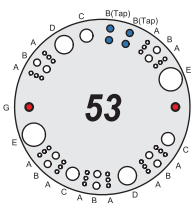
Machine specifications

Model	EM-255MIIe	EM-2510MIIe	EM-2612MIIe	EMZ-3510MIIe	EMZ-3612MIIe	EMK-3510MIIe	EMK-3612MIIe
Model Name (Note the points listed below)	EM255M2E	EM2510M2E	EM2612M2E	EMZ3510M2E	EMZ3612M2E	EMK3510M2E	EMK3612M2E
Press capability	kN 200			300			
Drive system	AC servo direct twin drive						
Turret specifications	Φ1010 same diameter turret			Z turret (upper and lower disks of different diameters)		Φ1200 King Turret	
Number of stations	49(2AI, 4MPT tapping st.), 58(2AI, no MPT tapping st.)			53(2AI, 4MPT tapping st.), 58(2AI, no MPT tapping st.)		67(2AI, 4MPT tapping st.), 70(2AI, no MPT tapping st.)	
Turret rotation speed	min ⁻¹ 30						
Processing range (X×Y)	mm 1270 × 1270	2500 × 1270	3050 × 1525	2500 × 1270	3050 × 1525	2500 × 1270	3050 × 1525
Maximum workpiece thickness	mm 3.2 (Mild steel)						
Maximum workpiece mass	kg 50(F1)/150(F4)						
Table feed rate (X×Y)	m/min 100 × 80			120 × 80	100 × 80	120 × 80	100 × 80
Hit rate (stroke length=5mm pitch=25.4mm)	min ⁻¹ 515			530	515	530	515
Pass line	mm 1000(standalone specifications)						
Processing accuracy	mm ±0.1 (according to AMADA inspection standards)						
Mass of machine	kg 16000	17000	19000	18500	20500	19000	21000

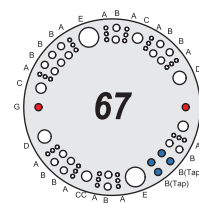
Same diameter turret 2AI/MPT 49 stations



Z turret 2AI/MPT 53 stations



King turret 2AI/MPT 67 stations



Tooling size	Same diameter turret	
	2 Auto Index with tapping	without tapping
A 1/2"	24	36
B 1 1/4"	16(4MPT)	12
C 2"	3	4
D 3 1/2"	2	2
E 4 1/2"	2	2
G 1 1/4" (AI)	2	2
H 2" (AI)	—	—
J 4 1/2" (AI)	—	—
Total	49	58

1. G,H,J is an auto-index station.

Tooling size	Z turret	
	2 Auto Index with tapping	without tapping
A 1/2"	30	36
B 1 1/4"	14(4MPT)	12
C 2"	3	4
D 3 1/2"	2	2
E 4 1/2"	2	2
G 1 1/4" (AI)	2	2
H 2" (AI)	—	—
J 4 1/2" (AI)	—	—
Total	53	58

1. G,H,J is an auto-index station.

Tooling size	King turret	
	2 Auto Index with tapping	without tapping
A 1/2"	33	36
B 1 1/4"	24(4MPT)	24
C 2"	4	4
D 3 1/2"	2	2
E 4 1/2"	2	2
G 1 1/4" (AI)	2	2
H 2" (AI)	—	—
J 4 1/2" (AI)	—	—
Total	67	70

1. G,H,J is an auto-index station.



For your safe use, be sure to read the "Instruction Manual" carefully before use.

- When using this product, appropriate personal protection equipment must be used.

*Specifications, appearance and equipment are subject to change without notice.

*The official model of the machine and equipment described in this catalogue is EM255M2E, EM2510M2E, EM2612M2E, EMZ3510M2E, EMZ3612M2E, EMK3510M2E, EMK3612M2E.

Use these registered model names when you contact the authorities for applying for installation, exporting, or financing. In this catalogue, readability is considered and EM-255MIIe, EM-2510MIIe, EM-2612MIIe, EMZ-3510MIIe, EMZ-3612MIIe, EMK-3510MIIe, and EMK-3612MIIe are indicated with a hyphen "-" in some parts.

*Photographs of the machine's hazard-prevention measures and some of the covers have been removed for the purpose of filming.

*The specifications described in this catalog are for use in Japan.

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Inquiries



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