



SOLUTION

EM ZR **SERIES**

SCRATCH FREE
PROCESSING POSSIBILITIES



SCRATCH FREE PROCESSING POSSIBILITIES

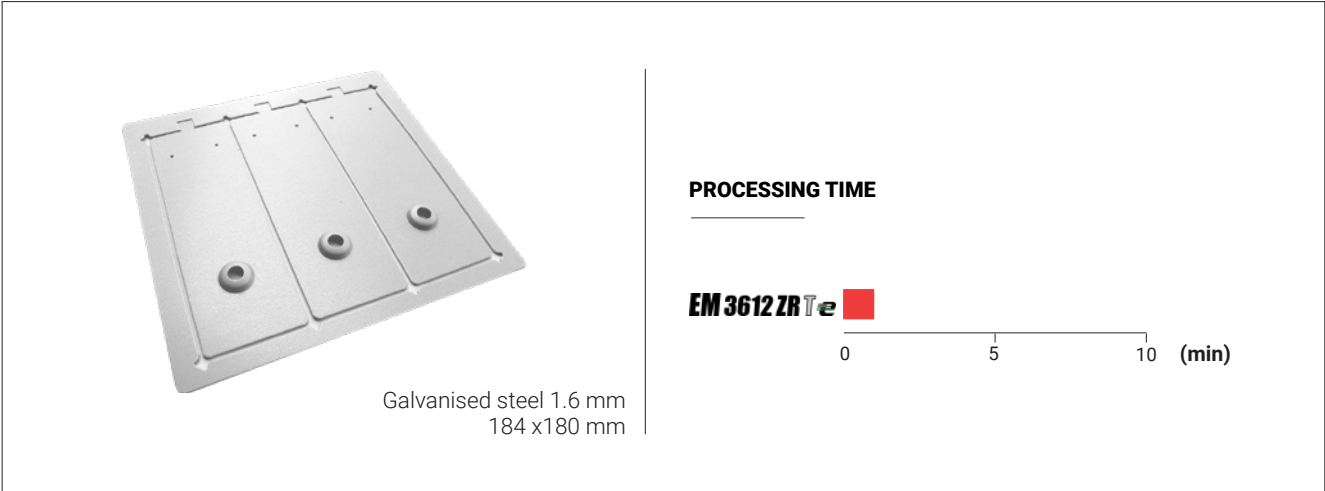
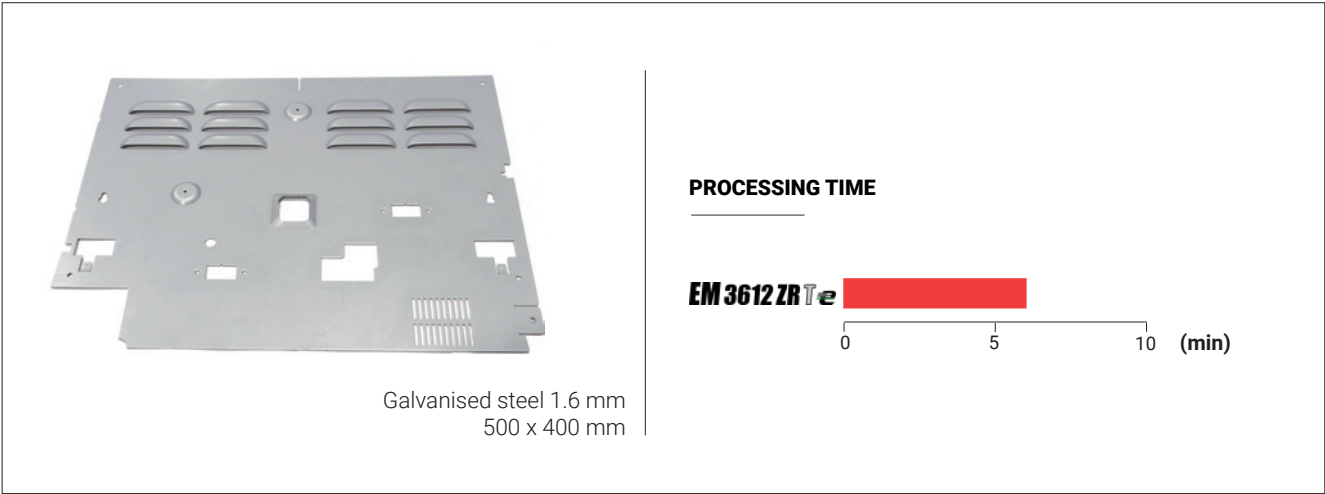
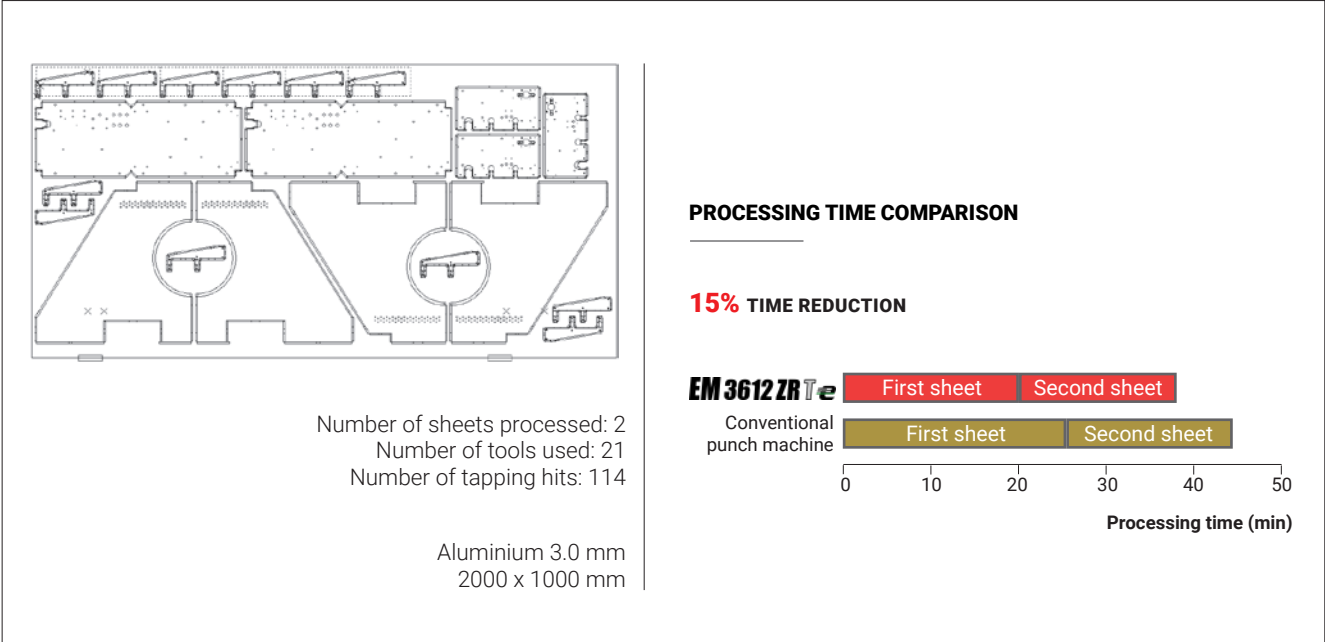
ELECTRIC PUNCHING WITH AUTO TOOL CHANGE

THE FUSION OF AMADA'S ORIGINAL TECHNOLOGIES ENABLES HIGH SPEED, HIGH QUALITY AND HIGH PRODUCTIVITY PROCESSING

The EM-ZRe series come equipped with AMADA's unparalleled AC servo direct twin drive system and ZR turret, a major innovation for turret punch presses. Parts can be produced not only with high speed but also with no scratching of the underside. When combined with AMADA's ID Tooling system and the elimination of processing limits, the EM-ZRe series is perfect for high-mix low volume continuous production.

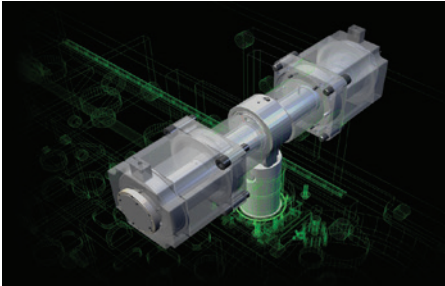


TYPICAL PROCESSING SAMPLES



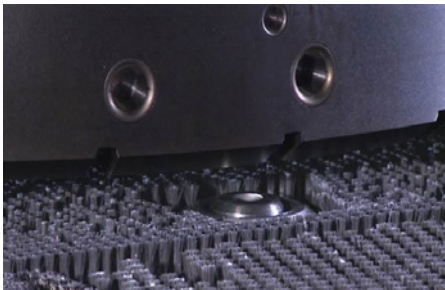
AMADA ORIGINAL TECHNOLOGIES

HIGH QUALITY, LOW RUNNING COSTS



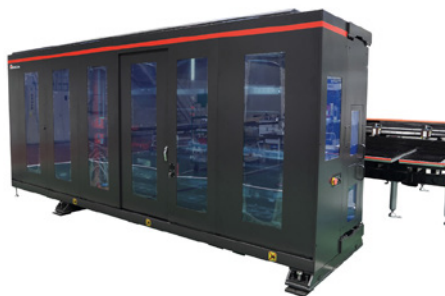
ALL ELECTRIC PUNCHING

The EM-ZRe uses twin AC servo motors to generate 30 tons of punching force, allowing a wide range of punched and formed parts to be processed. This system uses up to 70% less electricity compared to hydraulic systems.



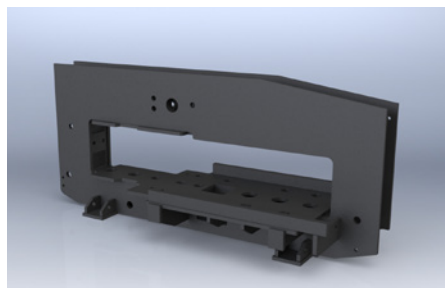
SCRATCH-FREE PROCESSING POSSIBILITIES

The lower turret of the EM-ZRe is completely covered by the brush table. Up/down forming, high extruded forms and scratch free processing are all possible as only the required die is lifted through the brush bed.



REDUCED MANUAL TOOL CHANGING

The EM-ZRTe includes the TSU (Tool Storage Unit) to minimise manual tool loading operations. Up to 300 punches and 600 dies can be stored in the system and all tools can be automatically loaded / unloaded via a buffer turret and robot system, including 'E' station and forming tools. The EM-ZRBe consists of a buffer turret and robot, allowing more than 30 tools to be prepared for automatic loading / unloading.



LONGER TOOL LIFE

AMADA's original bridge frame design ensures that any deflection due to punching forces does not affect the alignment between punch and die as the tool is always in a central position, potentially extending tool life.

STANDARD EQUIPMENT AND FUNCTIONS



V-monitor

Check the real-time machine status remotely on your smart device. Additionally, whenever an alarm occurs, V-Monitor will also record HD video to enable diagnosis of the issue.



ID Tooling

Punches and dies are immediately identified and tracked for number of hits, sharpening amount, and remaining life, helping to minimize set up mistakes. The tool angle and appropriate die selection are also confirmed upon installation.



AMNC 4ie

The AMNC 4ie numerical control used on the EM-ZRe is a 21.5" HD touch screen system that provides simple, intuitive operation for higher productivity. Facial recognition, service tutorial videos and connection to AMADA's IoT service systems helps increase machine uptime.



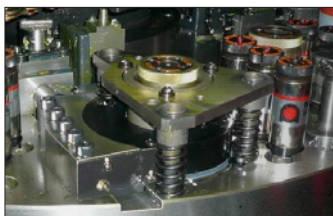
Tapping stations

4 tapping stations are integrated into the turret of the EM-ZRe. These allow M2.5 to M8 taps to be utilized in the program. When they are not required for tapping operations, they can be loaded with standard 'B' station tools.



AMADA rapid forming tool (ARFT) compatibility

The EM-ZRe is supplied with the ability to support the AMADA Rapid Forming Tools (ARFT) for continuous, quick forming of more complex profiles such as offsets, beading and chamfering.



Auto Index Stations

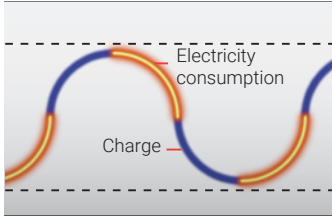
The Auto-Index System enables punching at any angle with a single tool, thus eliminating the need for special key angle tooling. When combined with special shaped tooling, the Auto-Index System becomes even more productive and flexible.



Punching without repositioning

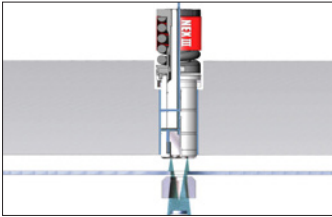
The EM-3612ZRe can process a 3000 x 1500mm sheet without a reposition. This helps to achieve fast and stable production, as well as simplifying the programming task.

STANDARD EQUIPMENT AND FUNCTIONS



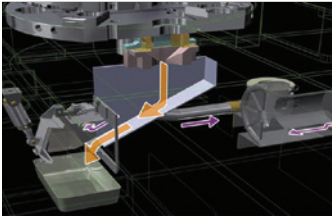
Energy Recovery System

This excellent energy recovery system collects and stores energy generated when the brake is applied to the ram into a capacitor, which is then reused during the next ram acceleration.



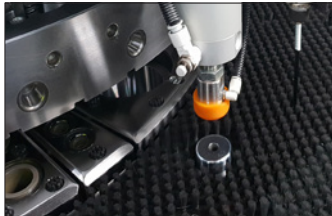
Air Blow System

The programmable Air Blow function on the EM-ZRe allows for self lubrication of the punching tools to give the benefits of prolonged tool life and increased punching efficiency.



Slug Suction Unit

The EM-ZRe series has a slug suction unit design which prevents slug pull through 3 controllable stages at each turret station, depending on the material thickness and tool size.



Punch break detector

The sheet repositioning cylinders are used to blow air through a punched hole to determine if it has been correctly processed or not. A build-up of back pressure indicates the punch could be broken or incorrectly setup. The machine will stop to prevent further issues.



Tool Setup Station (EM-ZRTe)

At the set up station, tools can easily be changed in parallel to the process. This drastically increases the machine utilisation. In combination with ID-tooling it makes tool management easier and helps to prevent any set up mistakes.



High Density Brush Table

As standard, the machine is equipped with brush tables that support material up to 4.5mm thickness. Manual sheet loading operation is greatly facilitated by retractable ball bearings.



Bar Code Reader

The barcode reader enables quick loading of programs directly from the network.

AUTOMATION SYSTEMS



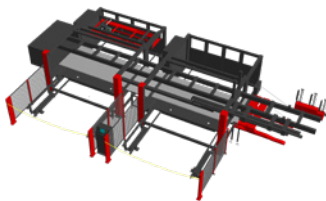
MP SheetCat
Compact, single pallet L/UL



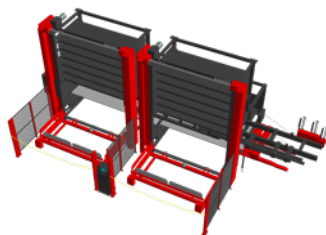
ASIII MP
Multi pallet L/UL



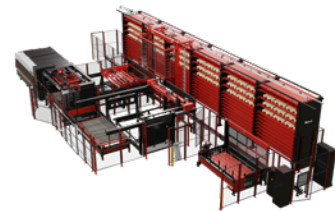
PR III
Part removal systems



LA NTK + SR NTK
Single pallet L/UL with enhanced
part removal



AS NTK + ULS NTK
Multi pallet L/UL with enhanced
part removal

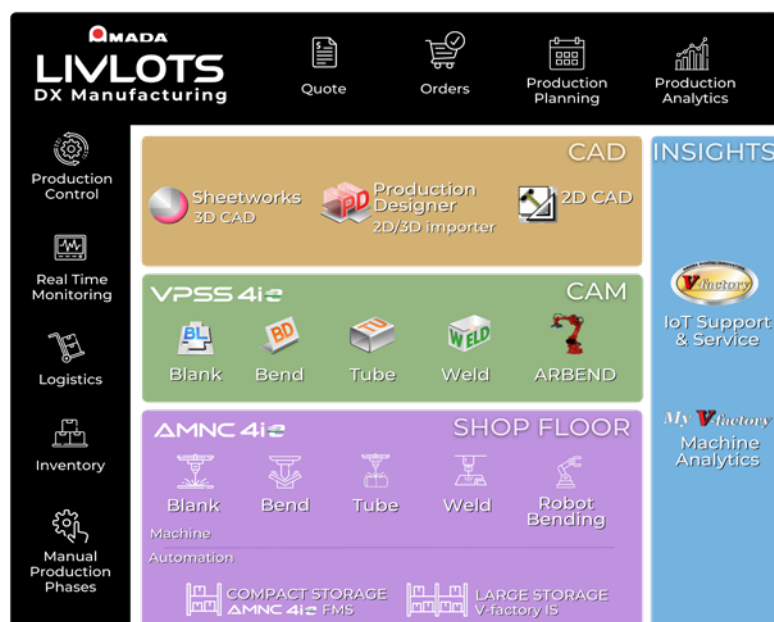


CS II
Stockyard systems

PRODUCTION PLANNING AND PROACTIVE SERVICE

With the brand-new software solution LIVLOTS (Live Variable LOT production System), AMADA demonstrates how digital transformation can make production processes more efficient and reliable.

Particularly noteworthy is the deep integration into innovative machine technologies, the VPSS 4ie CAD CAM software solution for virtual prototype manufacturing, complemented by predictive support from technical services, which reduces downtime and increases machine availability.



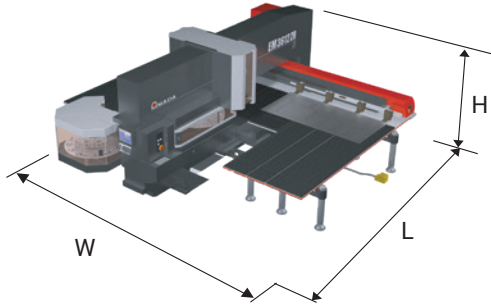
DIMENSIONS

EM-3510ZRBe

(L) 6157 x (W) 5120 x (H) 2367

EM-3612ZRBe

(L) 6582 x (W) 6220 x (H) 2367

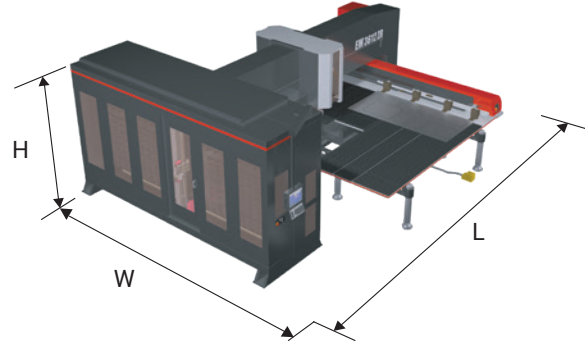


EM-3510ZRTe

(L) 7005 x (W) 5120 x (H) 2666

EM-3612ZRTe

(L) 7415 x (W) 6220 x (H) 2666



Unit : mm

MACHINE SPECIFICATIONS

EM-ZR eSeries			EM-3510ZRBe	EM-3612ZRBe	EM-3510ZRTe	EM-3612ZRTe
Numerical control			AMNC 4ie			
Punching force		kN	300			
Drive system			AC servo, direct twin drive			
Turret	Number of stations		32 ZR (4 Auto Index stations)			
Controlled axes			11		17	
Axis travel distance	X x Y	mm	2500 x 1275	3050 x 1525	2500 x 1275	3050 x 1525
Maximum simultaneous feed rate	X/Y	m/min	144	128	144	128
Maximum punching hit rate	5 mm stroke / 25.4 mm pitch	hpm	500			
	5 mm stroke / 2.0 mm pitch					
Maximum marking hit rate	1.4 mm stroke / 0.5 mm pitch	hpm	1800 (X) - 950 (Y)			
Punching accuracy		mm	± 0.1			
Work range without reposition		mm	2500 x 1275	3050 x 1525	2500 x 1275	3050 x 1525
Maximum sheet thickness		mm	4.5			
Maximum material mass		kg	50 (F1) / 150 (F4)			
Machine mass		kg	20000	21500	23500	25000

Specifications, appearance and equipment are subject to change without notice by reason of improvement.



For Your Safe Use

Be sure to read the operator's manual carefully before use.

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

The official model name of the machines and units described in this catalogue are non-hyphenated like EM3612ZRTE. Use this registered model names when you contact the authorities for applying for installation, exporting, or financing.

The hyphenated spellings like EM-3612 ZRTE are used in some portions of the catalogue for sake of readability. This also applies to other machines.

Hazard prevention measures are removed in the photos used in this catalogue.

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