AMADA

AMADA PRESS SYSTEM CO., LTD.

LINEUP FOR STAMPING PRESS MACHINES

General catalogue

STAMPING
AND
SYSTEMS

AMADA

From high accuracy to ultra-high accuracy

In 1965, AMADA developed the TP Series of stamping press machines with the basic aim of reliable safety. The TP Series took the forefront of stamping press machines. For the first time, a stamping press utilizes a wet clutch-brake combination in the transmission mechanism, proving its effectiveness in consistent operation. Based on the highly trusted TP Series, AMADA's subsequent stamping presses evolved into a variety of series as all-encompassing systems of hardware, software, peripheral equipment, and service to meet the varied needs of its customers.
AMADA's stamping presses improve productivity and reduce total cost by reducing die setup time, improving material yield, promoting process rationalization through automation and configuration of production lines, and streamlining production management. Our stamping presses are constantly evolving, from high accuracy to ultra-high accuracy, such as the development of the low noise link motion press and the Digital AC Servo Press, which has greatly expanded the possibilities of press production.

History of Progress -- AMADA Stamping Press Machines

1965	Launched first **TP** machine
1973	Launched **TPW** Series
1979	Launched **TP-B** Series
1981	Launched **TP-C** Series
1982	Launched **TPW-B** Series
1987	Launched **TPW-C** Series
1990	Launched industry first C-frame link press in **TPL** Series
1995	Launched silent link press **TPL-Si** Series
1996	Launched 2-point link press **TPWL** Series
1997	Launched **TP-EX** Series
2003	Launched digital AC servo press **SDE** Series
2007	Launched 2-point digital AC servo press **SDEW** Series
2014	Launched ECO function equipped **TP-FX**, **TPL-FX**, **TPW-FX**, **TPWL-FX** Series
2015	Launched digital AC servo press **SWE-4025**
2016	Launched high-rigidity digital AC servo press **SDE** Series **GORIKI**
2020	Launched **i3** control equipped digital AC servo press **SDE-i3**, **SDEW-i3**, **SDE-i3 GORIKI** Series
2021	Launched 2-point digital AC servo press **SWE-i3**, **SDEW-i3 GORIKI**, automation system for progressive stamping press production **ALFAS**
2022	Launched high-speed line system with articulated robots and servo-drive stamping presses **ARPAS**

Our Network

Assembly plant in Fujinomiya Works

Second plant in Suzukawa Works

Assembly plant in Guangdong, China

AMADA Solution Center

Kansai Technical Center

Overseas base in Thailand

Overseas base in U.S.A.

AMADA Parts Center, where integrated supply base

AMADA Innovation Center

Suzukawa Works

Service car

Stamping press automation solution

AMADA PRESS SYSTEM has a line of stamping press machines and peripheral equipment to meet specific needs of customers.
You can select best machines and peripheral equipment that suits your facility in terms of lead time, cost, and other factors.

Digital AC Servo Press

GO-RIKI

Link press

1-point

SDE i Ⅲ SERIES
800 ~ 3000 kN P7 ▶

SDE i Ⅲ GORIKI SERIES
1500 ~ 3000 kN P8 ▶

TPL FX SERIES
450 ~ 3000 kN P10 ▶

2-point

SDEW i Ⅲ SERIES
2000 & 3000 kN P7 ▶

SDEW i Ⅲ GORIKI SERIES
800 & 1600 kN P8 ▶

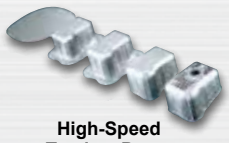
TPWL FX SERIES
1100 ~ 5000 kN P10 ▶

SWE i Ⅲ SERIES
4000 & 6000 kN P9 ▶

High-Speed Line System with Articulated Robots and Servo-Drive Stamping Presses

P 13

ARPAS
AMADA Robot Press Automation System



Straightener-Feeders

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High-Speed Tandem Press Line System

P 13

SDE-8018i3 & RHQ-120

Software

P 15

V-factory	IoT Solution of AMADA Group Visualization of operation/ production information
APINES	Visualization software of press shop
WANMS	Pressure waveform analysis software
SMAPS	Motion creation and editing software

Automation system for progressive stamping press production

Crank press

TP FX SERIES
150 ~ 2500 kN

P 11

Knuckle link press

ALFAS
AMADA Leveler Feeder Automation System

SDE-1515i3 & ALFAS-03KR
800 ~ 3000 kN

P 13

TPW FX SERIES
1100 ~ 3000 kN

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PDL SERIES
3000 ~ 6000 kN

P 9

ALFAS
AMADA Leveler Feeder Automation System

SDEW-8010i3 & ALFAS-03ARZ
800 & 1600 kN

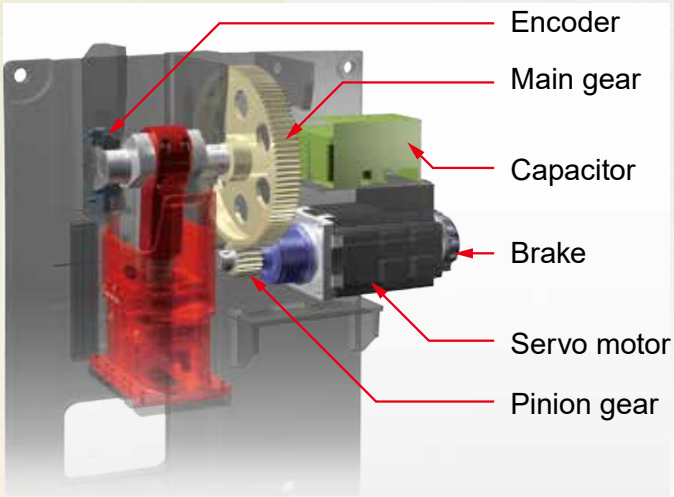
P 13

Digital AC Servo Press

Designed for value-added forming and improved productivity

The Digital Servo Direct Drive (DSDD), a fusion of an i3-controlled servo stamping press and a performance-proven crank mechanism, provides optimum speed and position control, and opens a world of unprecedented high productivity and high value-added forming.

Mechanical image



Sample motion screen

12 types* of motion that enable high value-added forming and productivity improvement (As additional options: 15 motions)
*Some models have optional motions.

"MF Eco machines" with environmental consideration

AMADA's servo press machines are the first MF Eco machine-certified.

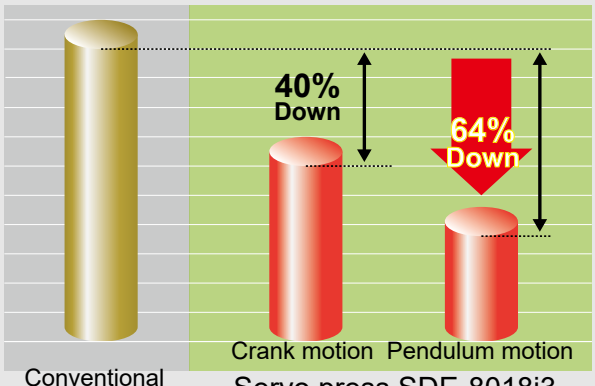
The power load-leveling, energy-saving circuit of the servo presses sharply reduced their power consumption as compared with conventional machines. The ECO monitor screen allows for the visualization of power consumption.

MF Eco machine
Japan Forming Machinery Assoc.
http://www.j-fma.or.jp
Cert.No.:MF-P001

1 Power conservation: Sharp reduction of power consumption

The power load-leveling, energy-saving circuit of the servo presses sharply reduced their power consumption as compared with conventional machines. It contributes to the visualization of power consumption.

Power consumption



Conventional machine*1

Servo press SDE-8018i3

ECO monitor screen

2 Resource conservation: Reduction of lubricating oil consumption

Lubricant consumption is reduced by 67%*2 compared to conventional machines*1 by abolishing oil pans and adopting a circulating oil lubrication system.

*2 Compared with SDEW-3025i3

3 Working environment: Significant reduction of stamping noise

Optimum slide motions help to cut the high decibel range of stamping noise. This reduces noise generation and improves the working environment.

*1 Mechanial stamping press machine of the same class

SDE i Ⅲ SERIES — 1-point / 800 ~ 3000 kN

High value-added forming from prototype to mass production

This stamping press machine with servo motor achieves improvement of forming, accuracy and economy by selecting the optimum motion according to the product from 12 types of motions, such as crank, link, soft, program, pendulum, high-speed pendulum, coining, repetition, pulse 1, pulse 2, pulse 1 pendulum, pulse 2 pendulum.

SDE-2025i3

Machine name		SDE-8018i3	SDE-1120i3	SDE-1522i3	SDE-2025i3	SDE-3030i3
Frame type		C / SF	C / SF	C / SF	C / SF	SF
Capacity	kN	800	1100	1500	2000	3000
Strokes per minute	min^{-1}	~ 80	~ 70	~ 60	~ 55	~ 40
Stroke length	mm	180	200	225	250	300
Die height	mm	350	390	430	460	550

SDEW i Ⅲ SERIES — 2-point / 2000 & 3000 kN

High value-added forming and improved productivity

1. The development of a digital servo direct drive that performs precise processing motion control and a high-rigidity integrated straight side frame maximizes stamping at two points.
2. We are able to achieve even high precision and productivity in processing with excellent repeatability by making full use of crank, link, soft, program, pendulum, high-speed pendulum, coining, and repetitive motions.

SDEW-2025i3

Machine name		SDEW-2025i3	SDEW-3025i3
Frame type		SF	SF
Capacity	kN	2000	3000
Strokes per minute	min^{-1}	~ 50	~ 45
Stroke length	mm	250	250
Die height	mm	500	550

Digital AC Servo Press

SDE i III GORIKI SERIES

1-point / 1500 ~ 3000 kN

High-speed, high-precision processing and improved productivity

"GORIKI" is a high-rigidity stamping press machine which, as the Japanese name suggests, means "powerful (RIKI) servo press machines with enhanced rigidity (GO)".
A new solid-column frame structure was adopted with a chevron-shaped structure on the upper part of the front frame and reduced cutout in the bed front plate. The GORIK's full-guided center-gib slide structure with additional side ribs out performs the lateral rigidity when compared with conventional models. The improved eccentric load resistance characteristics sustain stable stamping accuracy.

SDE-1515i3

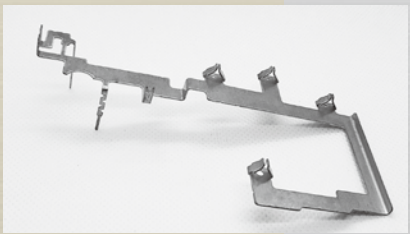
Machine name		SDE-1515i3	SDE-2017i3	SDE-3020i3
Frame type		SF (GORIKI)	SF (GORIKI)	SF (GORIKI)
Capacity	kN	1500	2000	3000
Strokes per minute	min^{-1}	~ 95	~ 75	~ 60
Stroke length	mm	150	175	200
Die height	mm	380	415	460

SDEW i III GORIKI SERIES

2-point / 800 & 1600 kN

High-speed, high-precision processing and improved productivity

The high-rigidity GORIKI Series, equipped with "i3" control, is now available in a double crank mechanism that has 8-sided slide gibbing. The high eccentric load resistance in the left, right, front and back is ideal for manufacturing electrical components such as busbars, which often have asymmetrical shapes.



SDEW-8010i3

Machine name		SDEW-8010i3	SDEW-1613i3
Frame type		SF (GORIKI)	SF (GORIKI)
Capacity	kN	800	1600
Strokes per minute	min^{-1}	~ 130	~ 80
Stroke length	mm	100	130
Die height	mm	320	400

SWEiIII SERIES — 2-point / 4000 & 6000 kN

High value-added forming and improved productivity

In addition to the high-rigidity straight-side integrated frame and the 8-sided gib guide system on the slide, the unique multiple servo motor design ensures repeatable for high-precision manufacturing. The double crank and cross shaft structure suppresses slide deflection, leading to improved product accuracy.
In addition, the newly developed tie-rod side insertion method has reduced the required installation height at the factory by approximately 30%.

SWE-6040i3

Machine name		SWE-4025i3	SWE-6040i3
Frame type		SF	SF
Capacity	kN	4000	6000
Strokes per minute	min^{-1}	~ 45	~ 40
Stroke length	mm	250	400
Die height	mm	600	600

Knuckle Link Press

PDL SERIES — 2-point / 3000 ~ 6000 kN

Possible high value-added cold forging progressive processing

Slowdown near the bottom dead center and practical stop at the bottom dead center assure accurate plastic working.
Slow return movement of a normal punch when returning from a die clears obstacle in operation rate due to scrap rising accurately.
Frame rigidity is several times higher than that of conventional stamping press machines. An optimum frame and bed structure is combined with a highly rigid structure of column, slide, and crown. The total elongation is 0.005 mm/10 kN or less.

PDL-300

Machine name		PDL-300	PDL-400
Frame type		SF	SF
Capacity	kN	3000	4000
Strokes per minute	min^{-1}	35 ~ 70	35 ~ 70
Stroke length	mm	150	150
Die height	mm	600	600

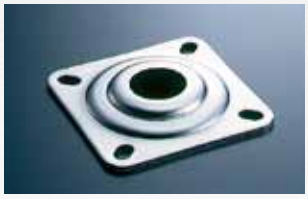
~ 6000 kN types are special specifications.

Link Press

TPL FX SERIES — 1-point / 450 ~ 3000 kN

Achieves high-precision and high productivity

1. Unprecedented high accuracy, high productivity, and deep drawability are achieved with a link mechanism.
2. Eco-functions reduce power consumption.
3. Operability improvement and machine data management have also been achieved.



TPL-80FX

TPL-200FX (SF)

Machine name			TPL-45FX	TPL-60FX	TPL-80FX	TPL-110FX	TPL-150FX	TPL-200FX
Frame type			C	C	C	C / SF	C / SF	C / SF
Capacity		kN	450	600	800	1100	1500	2000
Strokes per minute	P / D	min^{-1}	100 ~ 180 / 55 ~ 90	85 ~ 150 / 40 ~ 75	80 ~ 130 / 40 ~ 70	50 ~ 100 / 30 ~ 60	40 ~ 80 / 25 ~ 45	35 ~ 70 / 25 ~ 45
Stroke length	P / D	mm	70 / 140	90 / 160	100 / 180	125 / 200	150 / 250	175 / 300
Die height	P / D	mm	255 / 290	290 / 335	320 / 350	350 / 390	380 / 420	415 / 460

"P" is for progressive processing, "D" is for drawing processing.

The 3000 kN type is a special specification.

TPWL FX SERIES — 2-point / 1100 ~ 5000 kN

Achieves high precision and reduced production noise

1. A link mechanism is installed as standard on the C frame and 2 points.
2. There are also bridge specifications (BI, BO, BN, and SF types) that limit gap opening in pursuit of high stamping accuracy.
3. Eco-functions reduce power consumption.

TPWL-250FX (BO)

TPWL-300FX (SF)

Machine name			TPWL-110FX	TPWL-150FX	TPWL-200FX	TPWL-250FX	TPWL-300FX
Frame type			C / BI	C / BI	C / BI / BO / SF	C / BI / BO / BN	BI / BO / BN / SF
Capacity		kN	1100	1500	2000	2500	3000
Strokes per minute	G / P	min^{-1}	35 ~ 65 / 40 ~ 80	30 ~ 55 / 40 ~ 75	25 ~ 45 / 40 ~ 65	20 ~ 40 / 30 ~ 60	20 ~ 40 / 30 ~ 55
Stroke length	G / P	mm	180 / 110	200 / 130	250 / 150	250 / 170	250 / 200
Die height	G / P	mm	400 / 350	450 / 400	500 / 450	550 / 450	550 / 450

"G" is for general processing, "P" is for progressive processing.

4000 ~ 5000 kN types are special specifications.

Crank Press

TP FX SERIES — 1-point / 150 ~ 2500 kN

A wide range of machines to meet your needs

1. The TP-FX Series adopts a highly rigid frame and a six-sided guide of construction designed against eccentric loading. These are the long-selling presses focusing on stamping accuracy and versatility.
2. Standard TFT colour screen provides better visibility and operator interface.
3. Advanced eco-functions are installed to achieve lower power consumption as compared with conventional machines.

TP-150FX

Machine name			TP-15FX	TP-25FX	TP-35FX	TP-45FX	TP-60FX	TP-80FX	TP-110FX	TP-150FX	TP-200FX
Frame type			C	C	C	C	C	C	C	C	C
Capacity		kN	150	250	350	450	600	800	1100	1500	2000
Strokes per minute	G / D	min^{-1}	70 ~ 140	70 ~ 120	60 ~ 100	55 ~ 100	45 ~ 85	40 ~ 75	35 ~ 65 / 30 ~ 55	30 ~ 55 / 25 ~ 45	30 ~ 55 / 25 ~ 45
Stroke length	G / D	mm	60	80	110	100 / 140	120 / 160	130 / 180	150 / 200	175 / 225	200 / 250
Die height	G / D	mm	200	220	250	255 / 290	290 / 335	320 / 350	365 / 390	390 / 430	420 / 460

"G" is for general processing, "D" is for drawing processing.

2500 kN type is a special specification.

TPW FX SERIES — 2-point / 1100 ~ 3000 kN

Basic models of wide bed stamping press machines

1. A planetary-geared transmission is adopted to increase the reduction ratio and to produce high torque and energy. This wide bed stamping press achieves stable continuous processing.
2. Standard TFT colour screen provides better visibility and operator interface.
3. Advanced eco-functions are installed to achieve lower power consumption as compared with conventional machines.

TPW-110FX (C)

Machine name			TPW-110FX	TPW-150FX	TPW-200FX	TPW-250FX
Frame type			C / BI	C / BI	C / BI / BO	C / BI / BO
Capacity		kN	1100	1500	2000	2500
Strokes per minute	G / P / D	min^{-1}	35 ~ 65 / 55 ~ 110 / 25 ~ 50	30 ~ 55 / 45 ~ 90 / 25 ~ 45	25 ~ 45 / 40 ~ 75 / 20 ~ 35	20 ~ 40 / 30 ~ 60 / 15 ~ 30
Stroke length	G / P / D	mm	180 / 110 / 230	200 / 130 / 250	250 / 150 / 300	250 / 170 / 300
Die height	G / P / D	mm	400 / 350 / 450	450 / 400 / 500	500 / 450 / 550	550 / 450 / 600

"G" is for general processing, "P" is for progressive processing, "D" is for drawing processing.

3000 kN type is a special specification.

Automation System for Progressive Stamping Press Production

ALFAS Digital AC Servo Press & Straightener-Feeder — 1-point / 1500 kN

Improved operability through integrating operation screen and controls

ALFAS
AMADA Leveler Feeder Automation System

Operability and productivity are improved by integrating the operation screen and control of the i3-controlled servo press machine and straightener-feeder.
It has excellent stability and achieves even higher precision and productivity in stamping press working.

System example

Single-crank servo stamping press machine

Machine name		SDE-1515i3
Frame type		SF (GORIKI)
Capacity	kN	1500
Strokes per minute	min^{-1}	~ 95
Stroke length	mm	150
Die height	mm	380

Straightener-feeder

Machine name		ALFAS-03KR
Width	mm	50 ~ 300
Thickness	mm	0.3 ~ 3.2
Max coil mass	kg	2000
Max outer coil ø	mm	ø1200
Max feed length	mm	400

SDE-1515i3 & ALFAS-03KR

ALFAS Digital AC Servo Press & High-Speed NC Roll Feeder — 2-point / 800 & 1600 kN

Improved productivity and quality with high-speed and high-precision feeding

ALFAS
AMADA Leveler Feeder Automation System

This system integrates the high-rigidity GORIKI Series double-crank servo press machine developed for electrical components for EVs and a new concept high-speed NC roll feeder with servo driven pilot release and up-loop straightener.

System example

Double-crank servo stamping press machines

Machine name		SDEW-8010i3	SDEW-1613i3
Frame type		SF (GORIKI)	SF (GORIKI)
Capacity	kN	800	1600
Strokes per minute	min^{-1}	~ 130	~ 80
Stroke length	mm	100	130
Die height	mm	320	400

Roll feeder and up-loop straightener

Machine name		ALFAS-03ARZ
Width	mm	50 ~ 300
Thickness	mm	0.2 ~ 1.0
Max coil mass	kg	2000
Max outer coil ø	mm	ø1200
Max feed speed	m/sec	6.0

SDEW-8010i3 & ALFAS-03ARZ

High-Speed Line System with Articulated Robots and Servo-Drive Stamping Presses

ARPAS Stamping press machines & 6-axis articulated robots coordinated transfer

Automation system for stamping processing

Achieves high-speed transfer by WAVE coordinated control operation

ARPAS
AMADA Robot Press Automation System

SDE-i3 servo stamping press machines equipped with "i3" control, with which improved visibility and operability, can be easily are integrated with a 6-axis articulated robots.

High productivity is supported by WAVE coordinated control operation that minimizes the time required to transfer parts from press to press to increase thru-put. In addition, we have automated the process for changing the End Of Arm Tooling (EOAT).
The automated (EOAT) change system shortens the setup time, contributes to labour saving, and enables continuous line operation.

High-Speed Tandem Press Line System

Stamping press machines & 2-axis servo robots coordinated transfer

Automation system for stamping processing

Pursuit of productivity and operability

A series of 2-axis high-speed servo robots that support stamping press automation with sophisticated designs and a wide variety of variations.

With the RHQ Robot Line, it is now possible to perform coordinated control operation in which the robot individually adjusts the timing with each stamping press machine through simple teaching, based on realistic alternating operation. Coordinated control operation achieves even higher production speeds.

Click here for product details

SDE-8018i3 & RHQ-120

Straightener-Feeder

ORII Straightener-Feeder

Width: 50 ~ 1300 mm
Thickness: 0.3 ~ 12.0 mm

Pursuit of productivity and operability

A Compact straightener-feeder is a piece of equipment that feeds coil material to a stamping press machine. The ORII Compact Straightener-Feeders are known for their space-saving design and are available in a wide variety of sizes from small to extra-large and are designed to handle most materials.

LCC-06HR3

High Performance

High-Performance models designed to meet demanding production requirements.

Compact

Compact design requires less production floor space while offering High-Performance.

Heavy Duty

Heavy duty large capacity units are designed to handle todays demanding materials.

Click here for product details

ECO Release

Lineup of "ECO Release" equipped products

By installing the "ECO Release" mechanism, we have succeeded in reducing excess electricity-consumption! Since it is possible to control the optimum air cylinder pressure according to the processing material and the thickness, power consumption can be reduced by up to about 50%, contributing to energy savings. This will achieve significant CO_2 reductions.

LCC HF4/HF2 Series

Width: 50 ~ 1000 mm
Thickness: Max 4.5 mm

High Performance

LCC HR3 Series

Width: 70 ~ 1300 mm
Thickness: Max 6.0 mm

High Performance

LCC HF1 Series

Width: 50 ~ 600 mm
Thickness: Max 3.2 mm

High Performance

LCC HL Series

Width: 70 ~ 1300 mm
Thickness: Max 6.0 mm
ECO Release: optional

High Performance

LCE HR3 Series

Width: 70 ~ 600 mm
Thickness: Max 6.0 mm

High Performance

LCC PM2 Series

Width: 70 ~ 1300 mm
Thickness: Max 9.0 mm
ECO Release: optional

Heavy Duty

Software

APINES, WANMS, SMAPS

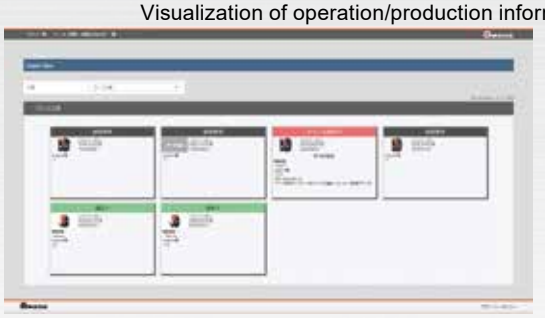
Software

Visualization of operation status and maintenance information is easily accessible.

- A digital network can be constructed from mechanical to servo stamping press machines.
- Real-time monitoring of alarm and maintenance information for all machines on the network
- Offline capability to edit servo press motion path programs

V-factory IOT Solution of AMADA Group

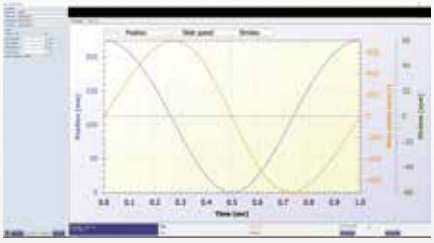
Visualization of operation/production information



APINES Real-time production monitoring software

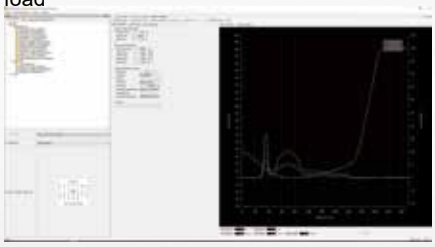
SMAPS Motion creation and editing software

Ability to create servo press motion paths off-line



WANMS Pressure waveform analysis software

Management of product quality by monitor processing load



⚠ Before using those products, please read the operator's manual carefully and follow all applicable instructions.

- Use of this product requires safeguard measures to suit your work. For details, see the safety guide on the home page.
- The servo presses correspond to the press machines specified in the Ordinance on Industrial Safety and Health. It is necessary to make application for their installation and take any other measure required.
- Options are included in the photos.

* Specifications, appearance, and equipment are subject to change without notice for improvement and other purposes.
* The official "Model name" for machines are without hyphen, like SDE8018I3.
* Use these official “Model name” when contacting authorities to apply for installation, export, or financing.
* In this catalogue, if there is a part with a hyphen in it, like "SDE-8018i3," it is for readability.
* The specifications described in this catalogue are for the Japanese market. Please ask your sales person for details.

AMADA PRESS SYSTEM CO., LTD.
200 Ishida, Isehara, Kanagawa, 259-1196 Japan
Phone: +81-463-91-2800
www.amp.amada.co.jp/en

Inquiry

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