Digital AC Servo Press SWEIII SERIES





SWE-4025i3 / SWE-6040i3





# From Precision to High Precision

The popular digital AC servo press incresed to 600 tons.

The new "13" control offers the ability to achieve high-precision forming and improved productivity.



SWE 504011

This image includes options.

In addition to the 400 tons digital electric double crank servo press that has been well received since its release, we have added a 600 tons type to our lineup.

In addition to a full-fledged straight-side frame, the original design, with multiple servo motor drives, supports ultra-precise high-precision processing.

It is possible to build an abundance of systems that correspond to numerous manufacturing sites.



**Digital AC Servo Press** 

SWEIMSERIES

# **New Technology of SWE-i3 Series**

# We created a line-up of optimum frame structures to meet the required accuracy.

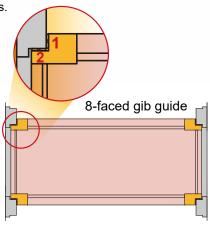
# **Highly rigid frame structures**

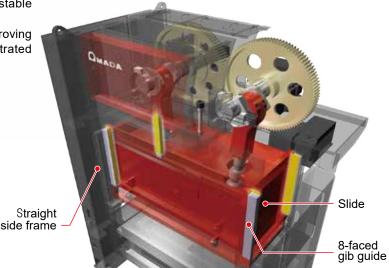
The double crank cross shaft structure suppresses slide deflection, leading to improved product accuracy.

A highly rigid straight-side integrated frame and an 8-sided gib guide system are used to maintain stable accuracy during production.

This design contributes to longer tool life by improving resistance to eccentric loads as well as concentrated



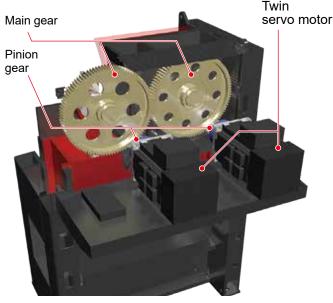




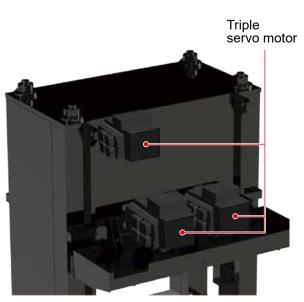
# High-productivity, high-value-added forming with the latest drive mechanism

# Unique twin/triple servo motor drive

Equipped with our own servo motor, we have improved the capacities of pressure, torque, and energy, and expanded the manufacturing range. We respond to a wide range of processing needs by supporting high-productivity, high-value-added forming.



400 tons: Twin servo motor



600 tons: Triple servo motor

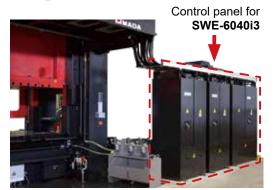


# New Technology of SWE-6040i3

# 3 Space saving with compact design control panel

## Free-standing control panel

The compact design enables free standing installation on the back and sides of the stamping press machine, expanding the flexibility of the factory layout. In addition, the wiring work is simple and it is less susceptible to noise since the wiring length can be shortened.



# 4 New technology of SWE-6040i3

## Processing for high-tensile strength steel

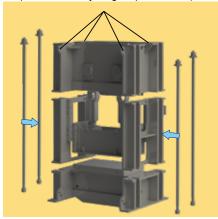
The pressurization capacity has been increased to 600 tons, making it possible to process complex shapes and high-tensile strength steel sheets.

## Simplification of shipping/transportation and installation

A new three-part straight side frame structure has been implemented. As a result, we have developed a side insertion method for tie rods that reduces the permissible installation height at the factory by approximately 30%. Tightening the tie-rod supresses the warpage of the column.

Approximately
30% reduction in allowable installation height

Required assembly height up to 30 ft



New tie-rod side insertion method

Required assembly height up to 41 ft



Conventional method: insert tie-rods from above

# 5 Automation by system upgrade

## Straightener-feeder which automatically supplies coil material

A diverse lineup that matches the manufacturing needs and high operability are achieved, contributing to high-precision stamping.





# **New Technology of SWE-i3 Series**

# Newly developed i3 control in pursuit of operability

## Improved operability of the screen

Three types of basic operation mode screens are provided for ease of use. Verifying the necessary information in each operation mode can be done quickly and easily.

#### Production



This screen displays the information necessary for producing the product.

The current values of total counters 1 and 2 and preset counters 1 and 2 can be displayed simultaneously.

In addition, it is possible to monitor changes in load and temperature over time, which are directly related to product accuracy and quality.

#### Trial



This screen displays the information necessary for trial production that repeats trial hitting, evaluation, and setting.

The load waveform, torque waveform curve, machine load factor, etc., can be monitored.

#### Setup



This screen displays comprehensive information for die setting, etc.

The operator can adjust the die height by utilizing the automatic slide adjustment function, monitor pneumatic equipment, control the digital die cushion,\* and operate the Quick Die Change\* system, all on one screen \*Optional

## An operation panel designed for operability

Operability has been improved by renewing the design layout and integrating the monitor and operation panel.



# High value-added forming and improved productivity

#### Various motions

By selecting the most optimal motion path according to the product, it is possible to improve formability, accuracy, and reduce cost.

Attached motions: Crank, link, soft, program, pendulum, high-speed pendulum, coining, repeat

#### Sample motion screen



#### Motion edit screen



## Simple Selectable Motion Programming (SSMP)

- The new standard process sample programming, along with motion sample programming and motion editing, makes the i3 control significantly more simple and easy to program, even for less experienced users.
- High-speed pendulum motion is included as a standard feature. Productivity improved 2 to 7%\* compared to the conventional high-speed pendulum motion. \* Depends on the models and conditions

Processing sample screen





# New Technology of SWE-i3 Series

# 8 Improved quality and productivity

# Built-in color graph load/torque monitor as standard equipment

Each i3 control is equipped with the enhanced load/ torque monitoring system, which is more advanced than your normal tonnage monitor.

With the touch of the screen, the operator can simply toggle between operating tonnage and machine torque usage.

The operator can also touch the screen to display the load/position and zoom in and out, allowing them to closely analyze the complete waveform.

### Curve diagram display of torque waveform



# 9 Reduction in setup time

# Automatic slide adjustment as standard equipment

The automatic slide adjustment functions allows the operator to adjust the die height according to a previously programmed job memory setting.

This reduces setup time and eliminates the chance of inputting the wrong setting.

#### Display of automatic slide adjustment



# 10 ECO machines with environmental consideration

## Servo press machines with ECO-friendly

AMADA's servo press machines were ECO machines, or environmentally conscious products, which contribute to environmental impact reduction and working environment improvement.

- 1 Power conservation: Sharp reduction of power consumption
- Resource conservation: Reduction of lubricating oil consumption
- Working environment:
  Significant reduction of stamping noise
  - \* Mechanial stamping press machine of the same class

#### ECO monitor screen



# **Other Functions**

## Built-in die protection system \*optional

- 4ch sensor input detection mode:
   Touch, contact, feed-failure, grip-failure detection
- Settings can be selected on the setup screen by selecting a previously programmed job memory.
- Equipped with a history function dedicated to the builtin die protection system.

## Display of die protection system



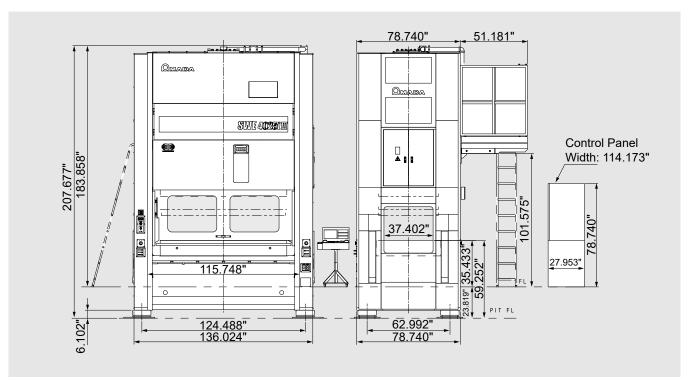
# **Specifications and Dimension Drawings**

## ■ Machine specifications / SWE-4025i3

Machine name		SWE-4025i3
Model name		SWE402513
Frame type		SF
Capacity	short ton	450
Tonnage rating point above BDC	inch	0.315
Side opening*	inch	37.402 x 25.591
Continuous no-load stroke rate	min <sup>-1</sup>	~ 45
Stroke length	inch	9.843
Die height	inch	23.622
Slide adjustment	inch	4.724
Slide face dimensions (LR x FB)	inch	94.488 x 45.276
Bolster dimensions (LR x FB x T)	inch	96.457 x 49.212 x 11.811
Main motor (AC servo), continuous rating	HP	53.641 x 2

These specifications, machinery, equipment, and appearance are subject to change without notice for reason of improvement.

## ■ Machine outline dimensions / SWE-4025i3



## ■ Standard accessories

- Large-size color LCD touch screen
- Total counter × 2
- Preset counter × 2
- Overload protector
- Built-in load monitor
- Auto slide adjustment
- Light curtain (Front)
- Light curtain (Rear)
- Front guard (manual lift)
- Side guard (fixed type)

## Optional accessories

- Automation compatible
- Die lifter
- Automatic clamp
- Vibration isolator
- Hand pulser
- Built-in die protection system
- Die information for 1000 dies

<sup>\*</sup>Side opening is height above bolster top surface.

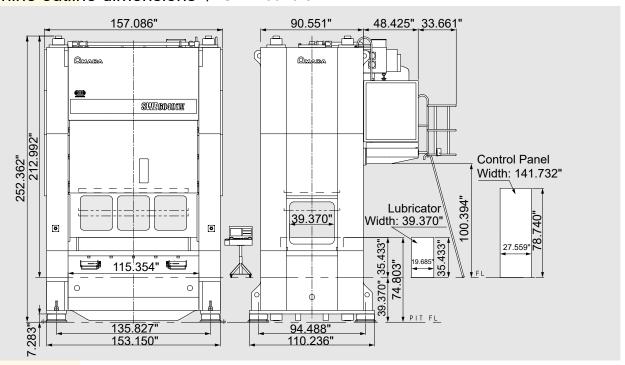


## ■ Machine specifications / SWE-6040i3

Machine name		SWE-6040i3
Model name		SWE6040I3
Frame type		SF (GORIKI)
Capacity	short ton	674
Tonnage rating point above BDC	inch	0.256
Side opening*	inch	39.370 x 31.299
Continuous no-load stroke rate	min <sup>-1</sup>	~ 40
Stroke length	inch	15.748
Die height	inch	23.622
Slide adjustment	inch	4.724
Slide face dimensions (LR x FB)	inch	96.457 x 49.212
Bolster dimensions (LR x FB x T)	inch	96.457 x 55.118 x 11.811
Main motor (AC servo), continuous rating	HP	53.641 x 3

These specifications, machinery, equipment, and appearance are subject to change without notice for reason of improvement.

### ■ Machine outline dimensions / SWE-6040i3



For accessories, see the previous page.

Warning: O.S.H.A. - required point of use guards for protecting the operator are not included and are the responsibility of the end user. These items can be purchased as a turn-key option.

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.

This control meets or exceeds the current requirements for press control systems as defined in O.S.H.A. Standards Section 1910.217, paragraphs (b)13 and (b)14 as published in the Federal Register, July 1, 1991 and ANSI B11.1-2009 as interpreted by AMADA PRESS SYSTEM CO., LTD. Compliance with any local code(s) or requirements is the responsibility of the user.

- \* Specifications, appearance, and equipment are subject to change without notice for improvement and other purposes.
- The official "Model name" for machines and units listed in this catalogue are SWE4025I3 and SWE6040I3.
- Use these "Model numbers" when contacting authorities to apply for installation, export, or financing.
- In this catalogue, if there is a part with a hyphen in it, like "SWE-4025i3," it is for readability.
- The specifications described in this catalogue are for the North American market. Please ask your sales person for details.

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## AMADA PRESS SYSTEM AMERICA INC.

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Inquiry

<sup>\*</sup>Side opening is height above bolster top surface.