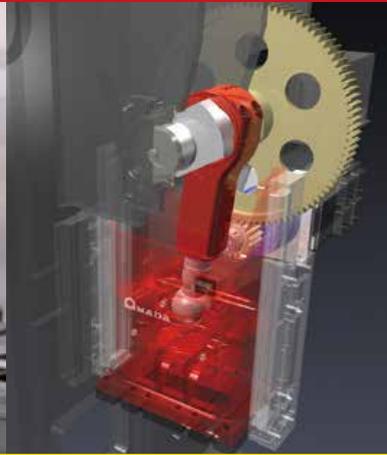


SDEiIII GORIKI

SERIES



Lineup

1-point SDE-1515i3 / SDE-2017i3 / SDE-3020i3

HIGH-RIGIDITY
DIGITAL SERVO
STAMPING
PRESS
MACHINES





High Rigidity & Powerful servo press



SDE-1515i3 + ALFAS-03KR



The new “i3” control offers the ability to achieve high-precision forming and improved productivity.

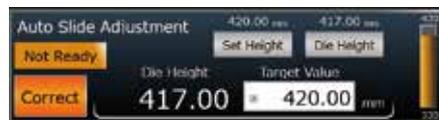
Improved quality and productivity

Contributes to product quality control with the built-in load monitor as standard equipment



Reduction in setup time

The standard equipment of automatic slide adjustment greatly reduces the setup time.



Improved operability

The 12.1" wide screen operation panel has a swivel structure for improved visibility.





New Technology of the SDE-i3 GORIKI Series

1 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.



2 High-rigidity frame structure for strengthening longitudinal rigidity

High rigidity structure by new solid-column frame

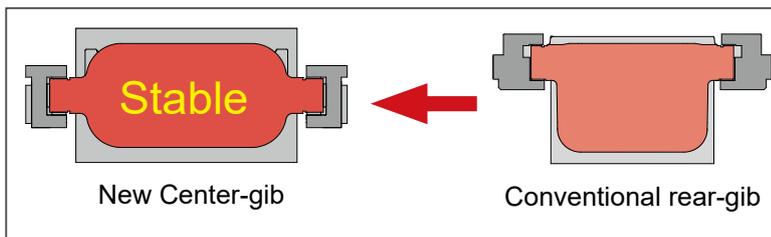
A new solid-column frame structure was adopted with a chevron-shaped structure on the upper part of the front frame and reduced cutout in the bed front plate. The longitudinal rigidity has been strengthened with the reduced expansion of the frame during stamping. With the reduction of breakthrough amount compared with conventional models, high precision, high quality manufacturing is supported.



3 High rigidity guide structure excellent in resistance to eccentric load

Center-gib full-guide structure

Making the slide gib into a center-gib full-guide structure and adding side ribs enhance the lateral rigidity compared with conventional models. The improved eccentric load resistance characteristics sustain stable stamping accuracy.



Center-gib full-guide structure

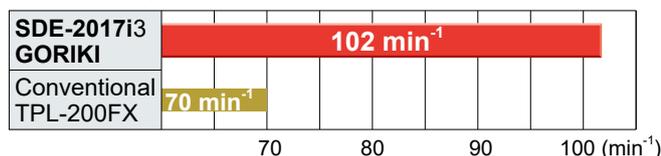
4 Pursuit of productivity to meet stamping needs

Further improvement of productivity

In order to improve workability in die change and accessibility from the rear, the frame front-to-rear dimension is reduced. In addition, productivity improves by increasing the number of strokes by pendulum motion.



Productivity comparison



Strokes per minute: **1.45 times greater**

Productivity comparison calculation conditions

Machine	SDE-2017i3 GORIKI	TPL-200FX
Motions	Pendulum motion Starting position: 90 mm	Link motion Stroke length: 175 mm
Approach strokes	75 min ⁻¹	35 - 70 min ⁻¹



New Technology of the SDE-i3 GORIKI Series

5 Enlarged slide area to meet multi-step progressive stamping

Enlarged slide area

In addition to the high-rigidity frame structure, the enlargement of the slide area allows for the ability to install multi-step dies. This satisfies a wide range of stamping needs, including high value-added forming of plates, forging, and high-tensile strength steel plates.



6 High value-added forming and improved productivity

Diverse motion patterns

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

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.

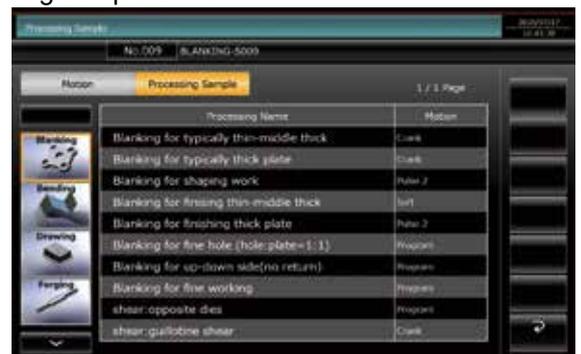
Available motions:

Crank, link, soft, program, pendulum, coining, repeat, pulse 1, pulse 2, pulse 1 pendulum, pulse 2 pendulum

Sample motion screen



Processing sample screen



7 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

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.

2 Resource conservation: Reduction of lubricating oil consumption

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

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.

ECO monitor screen



* Mechanical stamping press machine of the same class

Other Functions

System Automation



Coil handling system

Complete turn-key systems with the press and coil handling equipment, designed by the same manufacturer, to meet your specific application.

Uncoiler

Equipped with an analog loop control function. Prevents the coil from loosening and reduces scratches.

Straightener

Easy roll cleaning reduces product defects.

Controls

The **ALFAS** is the first-in-the-world integrated control system between a press machine and material feeder. Controls both equipment with one HMI.



SDE-1515i3 + ALFAS-03KR

Network-compatible stamping press machines

Visualization of stamping press operation status and maintenance information by PC

- Digital network connection is possible from general-purpose to servo presses.

- Real-time monitoring of presses connected to the factory network.

- Alarm and maintenance information can be checked and saved in real-time.





Processing examples with sample workpieces

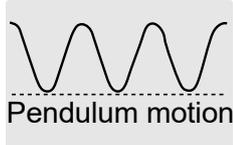
High accuracy shear processing

Machine: **SDE-1515**

Material: Hot rolled mild steel sheet (JIS: SPHC)

Thickness: 3.2 mm

Size: 83 x 46 mm



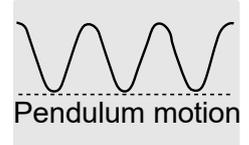
Pendulum motion

Machine: **SDE-1515**

Material: Hot rolled mild steel sheet (JIS: SPHC)

Thickness: 3.2 mm

Size: 83 x 96 mm



Pendulum motion



2 types processing in one die

Spot face by sheet metal forging, diameter of the hole by high accuracy shear processing.

Integrated forming by sheet metal forging technology

Machine: **SDE-2017**

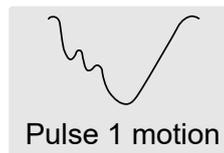
Material: Hot rolled mild steel sheet (JIS: SPHC)

Size:

Outer diameter: $\phi 34.5$ mm

Flange thickness: 4 mm

Axial height: 11.5 mm



Pulse 1 motion

Sample workpieces supplied by OTA Co.,Ltd.



Cut section

Flange part and axis part are formed integrally by sheet metal forging

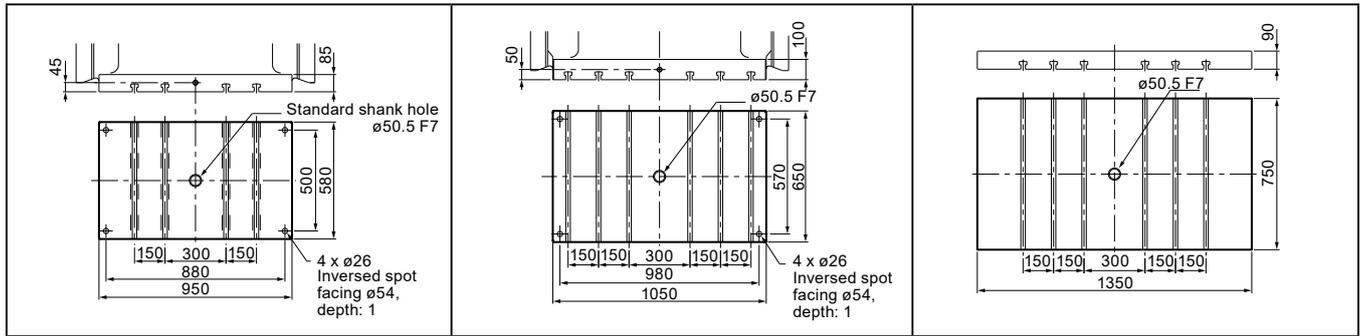
Conventionally, a product with a flange and axis is processed such as cutting, header processing, welding of two parts.

But this product has problems for strength, cost and accuracy. Sheet metal forging (Increasing thickness to axis section) has solved above problems.

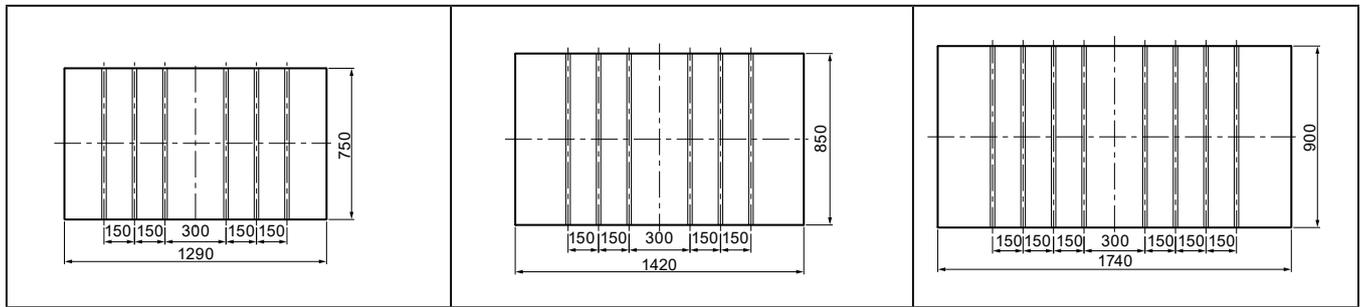
Dimension Tables for Die Space

Unit: mm

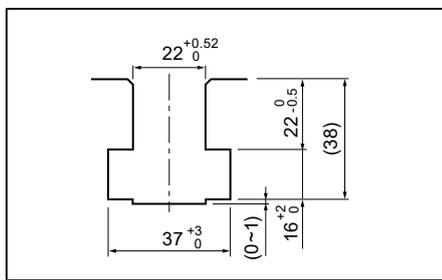
Standard slide bottom drawing



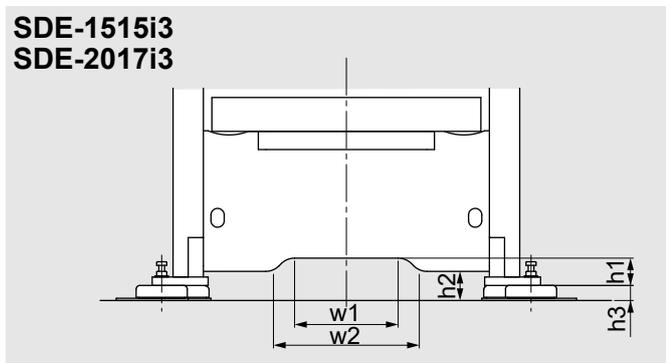
Bolster plate drawing



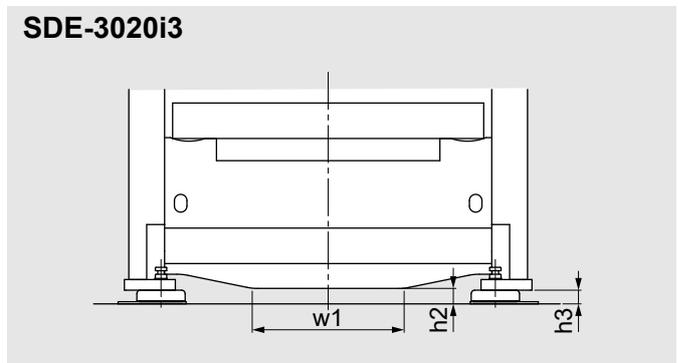
T-slot details (common)



Dimension Tables for Bed Bottom



Machine name	SDE-1515i3	SDE-2017i3
w1	547	547
w2	780	770
h1	145	145
h2*	150	155
h3*	80	80



Unit: mm

Machine name	SDE-3020i3
w1	850
h2*	90
h3*	80

*When the anti-vibration device with AD base plate is installed.



Specifications and Dimension Drawings

Machine specifications

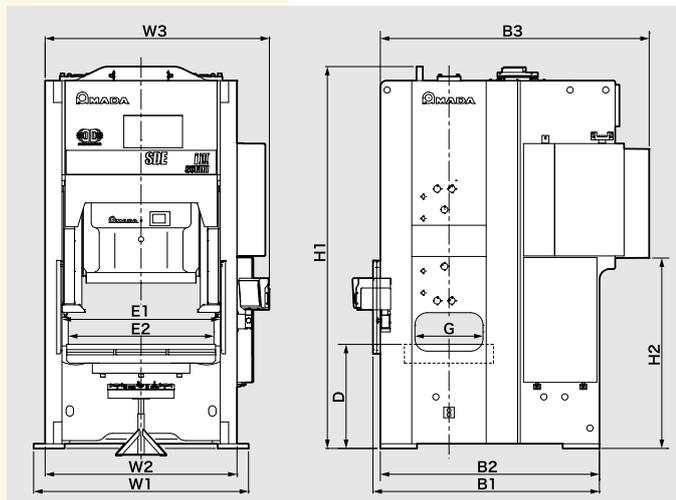
Machine name		SDE-1515i3	SDE-2017i3	SDE-3020i3
Model name		SDE1515I3	SDE2017I3	SDE3020I3
Frame type		SF (GORIKI)	SF (GORIKI)	SF (GORIKI)
Capacity	kN	1500	2000	3000
Tonnage rating point above BDC	mm	4.3	5.3	5.0
Side opening*	mm	580 x 280	650 x 305	770 x 350
Continuous no-load stroke rate	min ⁻¹	~ 95	~ 75	~ 60
Stroke length	mm	150	175	200
Die height	mm	380	415	460
Slide adjustment	mm	100	110	110
Slide face dimensions (LR x FB)	mm	950 x 580	1050 x 650	1350 x 750
Bolster dimensions (LR x FB x T)	mm	1290 x 750 x 160	1420 x 850 x 180	1740 x 900 x 200
Main motor (AC servo), continuous rating	kW	35	40	50

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

*Side opening is height above bolster top surface.

Machine outline dimensions

Unit: mm



Machine name	SDE-1515i3	SDE-2017i3	SDE-3020i3
W1	1900	2050	2280
B2	1905	2090	2050
H1	3290	3670	4420
D	900	1000	1055
E1	1380	1510	1830
E2	1260	1390	1710
G	580	650	770
W3	2135	2285	2685
W2	1680	1830	2230
B1	1975	2160	2120
B3	2310	2565	2920
H2	1630	1830	1915

Standard accessories

- Large-size color LCD touch screen
- Die information for 100 dies
- Total counter × 2
- Preset counter × 2
- Position switch × 4 spare switches
- Overload protector × 1
- Air ejector
- Built-in load monitor
- Auto slide adjustment
- Light curtain (Front)
- Light curtain (Rear)

Optional accessories

- Automation compatible
- Die lifter
- Automatic clamp
- Side guard
- Rear guard
- Vibration isolator
- Hand pulser
- Built-in die protection system
- Software for stamping press machines

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 and units listed in this catalogue are SDE1515I3, SDE2017I3, and SDE3020I3. 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 "SDE-1515i3," it is for readability.
- The specifications described in this catalogue are for the Japanese market. Please ask your sales person for details.

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Inquiry

