



## SD SERIES

Solid Frame Crank Servo Press

## SDG SERIES

Straight Side Crank Servo Press

## SDE SERIES

Straight Side Eccentric Gear Servo Press



# SEYI's Customized Total Solution for Our Valuable Customers



## SEYI Servo Press + Transfer System + Feeder + Quick Die Change System

SEYI Servo Presses can easily integrate with different kinds of peripheral equipment, assisting our customers to achieve better production.

- 1 SEYI Servo Press
- 2 Feeder
- 3 Transfer System
- 4 Die Changing Cart
- 5 Decoiler
- 6 Scrap Conveyor



Scan me



## Flexible and Capable to Meet Different Requirements

SEYI can provide a complete tandem line after a comprehensive evaluation of the customer's production method and environments. We provide systematic and flexible integrated solutions, including different types and tonnage presses to adapt to challenging requirements.

### Our Advantages:

- Simultaneous / Cooperative control for multiple servo presses.
- The machine height of a tandem line would be lower than a single large press, lessening the factory construction cost.
- Servo and mechanical presses can be combined.

Take the small tonnage press line (at least 4 units) for example. The line not only matches the production in high tonnage, but also surpasses the productivity of a large-tonnage press. Customers do not need to prepare the foundation pit, saving the investment in factory construction.

By implementing a tandem line layout, the original transfer die configuration can be changed to one die, one station. This can effectively lessen eccentric load, which improves the quality of stampings, shortens the time for tool adjustments, and reduces the tool maintenance costs.



Large-tonnage press line Illustration



Small-tonnage press line Illustration



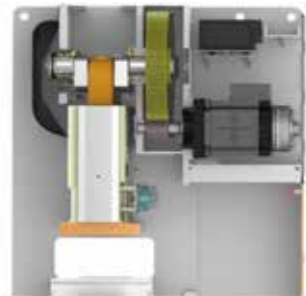
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# SEYI's Eco-Friendly and Efficient Servo Press Benefits Customers

With an upward trend in environmental protection and power saving around the world, SEYI has been motivated by the mission to develop the world-class servo press. SEYI has utilized the latest technology in order to provide our customers with sophisticated, energy-saving and intelligent products. SEYI servo presses feature a direct drive transmission and a rigid frame design to reduce the total clearance. These presses are equipped with the most efficient servo motors that are only for servo presses.

## Direct-Drive Transmission

- SEYI servo motors integrate the pinion shaft directly into the motor
- Accuracy exceeds JIS 1 level



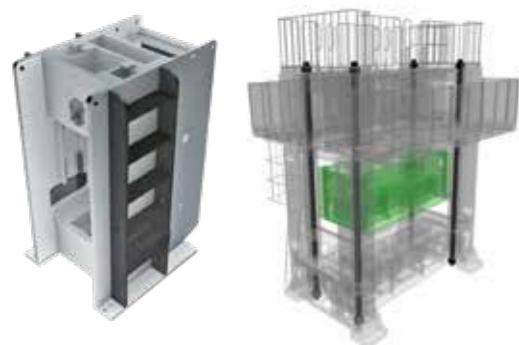
## Servo Motor

- Low Revolution Speed • High Torque  
Compact Size • High Efficiency
- Reduces power consumption
  - Power regeneration
  - Green equipment
  - Excellent acceleration and deceleration
  - The highest motor torque in the industry



## Advanced Press Structure Enhancement- Perfect for New Materials

- SD Series-RIBBED frame design  
Load balance to increase vertical and sidewall strength
- SDG/SDE Series -3 piece tie-rod frame structure  
High rigidity suitable for high-tensile steel stamping



## Energy Saving & Low Electrical Power Consumption

Compared with a traditional press, a SEYI servo press can provide significant savings on electricity costs.

		Servo Press	Mechanical Press	Hydraulic Press
Total Voltage	kVA	240	208	277
Power Consumption per Hour	kWh	48	83	194
Power Consumption per Year	kWh	359,000	622,000	1,451,000
Yearly Electricity Cost (Japan)	Yen (¥)	8,687,800	15,052,400	35,114,200
Yearly Electricity Cost (USA)	US (\$)	43,080	74,640	174,120

\*The calculation is based on a 12000kN servo press running 24 hours per day and 312 working days per year.

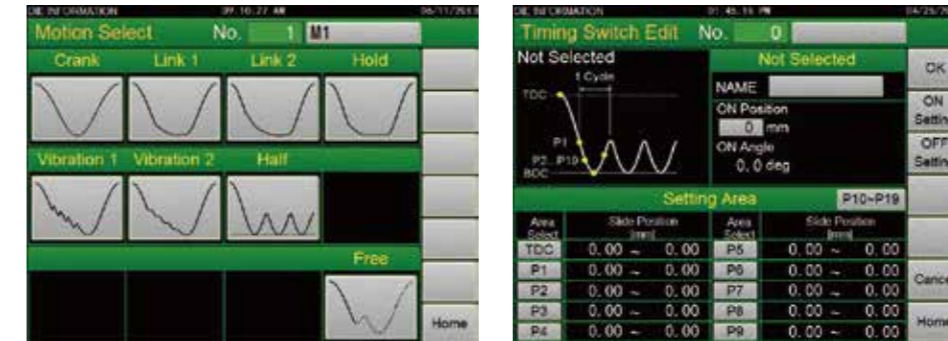
\*The data is based on SEYI's assumptions. The actual expenses are subject to regions and applications.

# User-Friendly Interface and Software

SEYI's user-friendly design on the HMI interface makes press operation simple and clear. Under each job number, all the corresponding parameters and settings, such as the motion profile, timing switches, tonnage monitor, die protection will be stored and saved in the servo press control system. When searching for a specific job number, all the settings for this tool will be shown on the HMI.

## Easy-to-Use Interface

Operators can easily set the profile parameters in the system to optimize complex stamping processes.



## Integrated Tonnage Monitor Function

- Set individual tonnage limits for each point and reverse tonnage limits
- Automatic setting of tonnage limits



## Integrated Die Protection

- Supports NPN/PNP signals
- Set detection timing and type
- Set stop type (E-stop or Top stop)
- Timing switch to set up the timing zone for any specific functions



\*All specifications are subject to change without notice. Please check with your supplier for exact offers. Products may not be available in all markets.

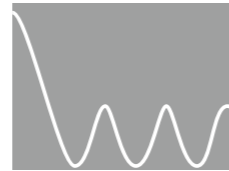
# Stamping Samples By SEYI Servo Press

## Twice the Productivity & Lower Power Consumption

Forming by pendulum mode-Half Motion



Compared to traditional presses, SEYI servo presses can eliminate unnecessary press movement, double the production output, and save about 50% on electrical power consumption while running progressive dies with Half Motion.



### Half Motion:

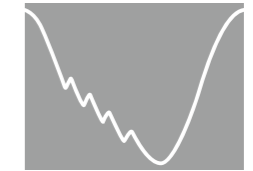
By taking the advantages of the servo press and the servo motor, the stamping stroke can be shortened.

## Deep Drawing: High Accuracy and Quality

Forming by vibration-Vibration Motion



Deep drawing products require high accuracy and quality. Precisely controlling the slide motion is necessary to achieve better accuracy and a smooth surface with low heat. This method can improve production efficiency. For example, this part only needs a single working process instead of five processes.



### Vibration Motion:

- Especially suitable for deep drawing
- Available in all SEYI servo presses, regardless of tonnage
- Precise control of the vibration speed and range

## Extrusion: Better Formability of Special Materials

Forming by holding pressure- Hold Motion



Hold motion on the servo press is suitable for special materials such as aluminum alloys and perform much better than traditional presses. Multiple stations are not necessary to complete this operation. For example, this work piece only needs a single process.



### Hold Motion:

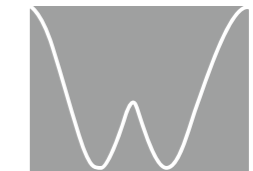
- Suitable for cold and hot forming
- BDC accuracy of 0.01mm (Able to dwell at BDC for extended time)

## Bending: Spring Back Effect Improvement

Forming by restriking-Free Motion



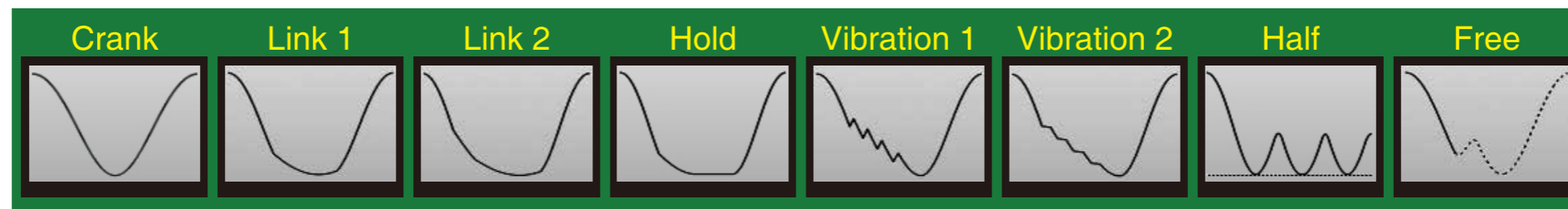
The stress of high-tensile steel can be eliminated via the repeated stamping on the same stage, effectively reducing the spring back effect. The spring back control of this work piece is within 0.3 degree.



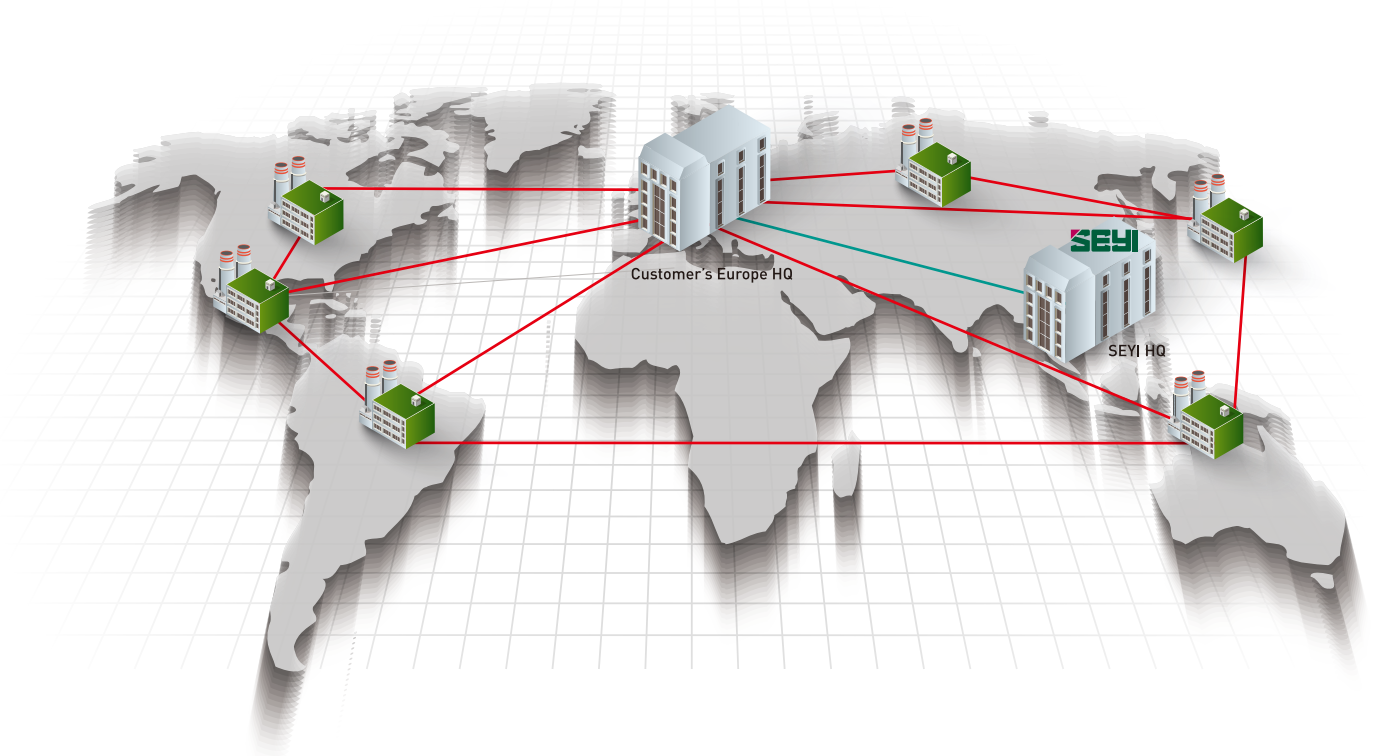
### Free Motion:

The stamping curve can be set up by customers themselves based on the condition of different tools.

## 7 Pre-programmed Motion Profiles and 1 Free Motion curve



# SEYI Servo Press is your first step toward Smart Factory



SEYI's servo system is designed to assist our customers in moving towards smart manufacturing systems. Flexible and extendable software design makes our press more intelligent. Real-time press status monitoring and remote repair can be done from anywhere in the world. This can assist the customers, especially multinational corporations, to monitor their production status in different countries and enhance global management efficiency.

## Production Monitoring & Troubleshooting

- Production status monitoring
- Machine status monitoring and error reporting
- Quick response for troubleshooting and tracking
- History management

## Intelligent Systems & Preventive Maintenance

- Auto adjustment to the optimal production condition
- Die protection
- Quality control monitoring
- Self-diagnosis and alert system

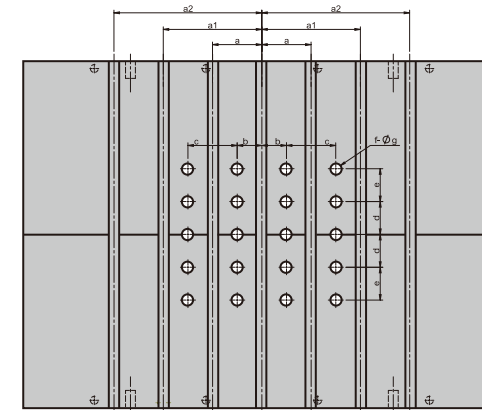
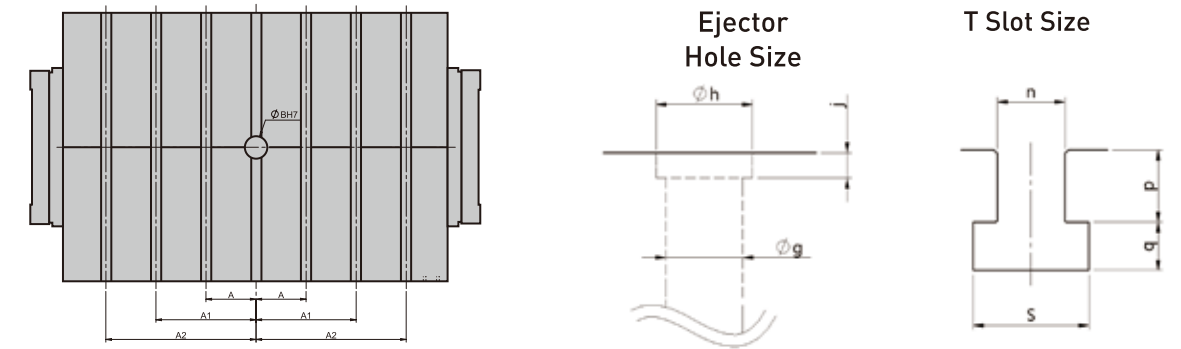
# SD1 series



## Slide Area & Bolster Area



Model		SD1-80	SD1-160	SD1-200	SD1-300
Tonnage Capacity	kN	800	1600	2000	3000
Stroke Length	mm	180	220	250	300
Strokes per Minute	spm	~80	~60	~50	~40
Tonnage Rating Point	mm	5	6	6	6
Die Height	mm	330	400	450	550
Slide Adjustment	mm	80	100	110	120
Slide Area (LR x FB)	mm	700 x 460	900 x 580	1000 x 670	1150 x 800
Bolster Area (LR x FB)	mm	950 x 680	1150 x 760	1300 x 870	1450 x 1050
Bolster Thickness	mm	140	165	180	200
Bolster Height (w/o Mounts)	mm	900	940	1020	1040
Window Opening (FB x UD)	mm	680 x 280	760 x 350	870 x 400	1050 x 450
Total Height	mm	2962	3502	3819	4345
Upper Die Weight	Ton	0.3	0.5	0.8	1.3
Required Air Pressure	MPa	0.55	0.55	0.55	0.55
Die Cushion	Capacity	kN	60	80	100
	Stroke Length	mm	95	110	130
	Die Cushion Area (LR x FB)	mm	480x340	560x370	700x450



Unit: mm

## Standard Attachments

- Servo System
- Safety Brake System
- Electrical Overload Protection
- Tonnage Monitor
- Programmable Motion Profiles
- Job Storage Capacity - Up to 200
- Die Height Adjustment
- Slide Position Adjustment (Handy Pulser)
- Portable Operation Stand
- Misfeed Socket
- Pneumatic ejector
- Safety Light Curtain
- Oil Lubrication System
- Total/Preset/Batch/Maintenance Counter
- Anti Vibration Mounts
- Safety Block
- Die Lamp
- Tool Box

## Optional Attachments

- Hydro-pneumatic Die Cushion
- Quick Die Change System
- Hydraulic Die Cushion
- Lamp Socket
- NDC (Servo Die Cushion)
- Rear Safety Guard

Model		SD1-80	SD1-160	SD1-200	SD1-300
Bolster	a	150	150	150	150
	a1	300	300	300	300
	a2	-	450	450	450
	b	75	75	75	75
	c	140	150	150	150
	d	45	50	100	100
	e	90	100	100	100
	f (LRxFB)	4x5	4x5	4x5	4x5
	$\phi g$	32	32	32	32
	$\phi h$	40	40	40	40
	j	10.5	10.5	10.5	10.5
	n	28	28	28	28
	p	30	30	30	30
	q	20	20	20	20
Slide Area	s	48	48	48	48
	A	150	150	150	150
	A1	240	300	300	300
	A2	-	-	-	450
$\phi B$	50.8	65	65	65	

# SD2 series



Model		SD2-160	SD2-200	SD2-300	SD2-400	SD2-500
Tonnage Capacity	kN	1600	2000	3000	4000	5000
Stroke Length	mm	220	250	300	350	350
Strokes per Minute	spm	~60	~50	~40	~40	~40
Tonnage Rating Point	mm	6	6	6	6	6
Die Height	mm	450	500	600	650	650
Slide Adjustment	mm	100	110	120	130	130
Slide Area (LR x FB)	mm	1620 x 580	1900 x 670	2280 x 800	2380 x 1000	2380 x 1100
Bolster Area (LR x FB)	mm	1910 x 760	2200 x 870	2580 x 1050	2680 x 1200	2680 x 1300
Bolster Thickness	mm	160	170	200	200	200
Bolster Height (w/o Mounts)	mm	950	1000	1150	1250	1250
Window Opening (FB x UD)	mm	760 x 400	870 x 450	1050 x 500	1200 x 550	1300 x 550
Total Height	mm	3573	3954	4589	4939	5300
Upper Die Weight	Ton	0.8	1.3	1.8	2.5	2.7
Required Air Pressure	MPa	0.55	0.55	0.55	0.55	0.55
Die Cushion	Capacity	kN	80x2	100x2	140x2	140x2
	Stroke Length	mm	110	130	140	140
	Die Cushion Area (LR x FB)	mm	560x370x2	700x450x2	700x450x2	700x450x2

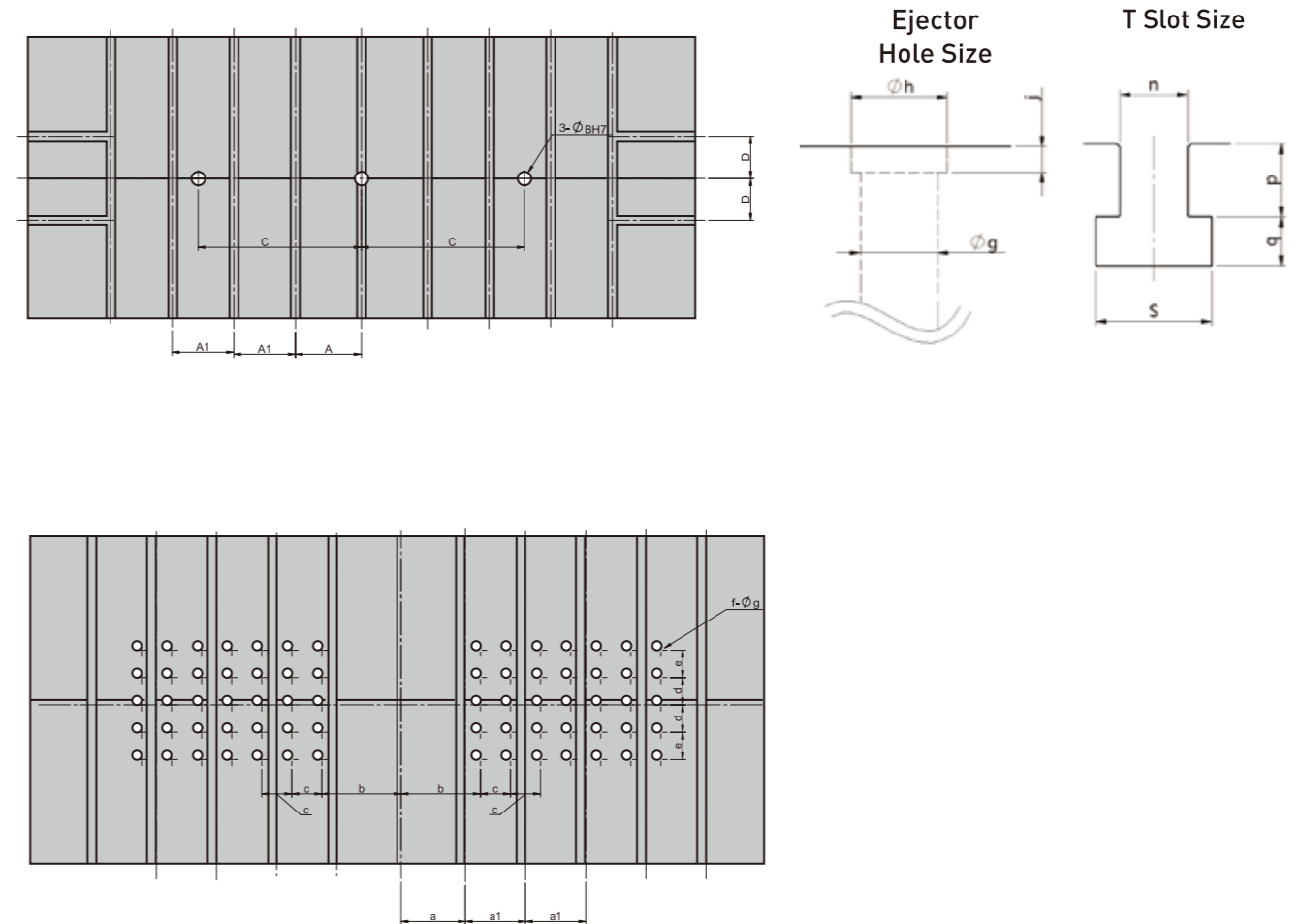
## Standard Attachments

- Servo System
- Safety Brake System
- Electrical Overload Protection
- Tonnage Monitor
- Programmable Motion Profiles
- Job Storage Capacity - Up to 200
- Die Height Adjustment
- Slide Position Adjustment(Handy Pulser)
- Portable Operation Stand
- Misfeed Socket
- Pneumatic ejector
- Safety Light Curtain
- Oil Lubrication System
- Total/Preset/Batch/Maintenance Counter
- Anti Vibration Mounts
- Safety Block
- Die Lamp
- Tool Box

## Optional Attachments

- Hydro-pneumatic Die Cushion
- Hydraulic Die Cushion
- NDC (Servo Die Cushion)
- Quick Die Change System
- Lamp Socket
- Rear Safety Guard

## Slide Area & Bolster Area



Unit: mm

Model		SD2-160	SD2-200	SD2-300	SD2-400	SD2-500
Bolster	a	200	215	235	235	235
	a1	200	220	220	220	220
	b	150	160	290	290	290
	c	100	110	110	110	110
	d	50	100	100	100	100
	e	100	100	100	100	100
	f (LRxFB)	6x4x2	7x5x2	7x5x2	7x5x2	7x5x2
	∅g	32	32	32	32	32
	∅h	40	40	40	40	40
	j	10.5	10.5	10.5	10.5	10.5
	n	28	28	28	28	28
	p	30	30	30	30	30
	q	20	20	20	20	20
s	48	48	48	48	48	
Slide Area	A	200	215	235	235	235
	A1	200	220	220	220	220
	∅B	51	51	51	51	51
	C	400	500	450	582	582
D	125	140	150	150	150	



# SDG2 series

Model		SDG2-400	SDG2-600	SDG2-800	SDG2-1000	SDG2-1200	
Tonnage Capacity	kN	4000	6000	8000	10000	12000	
Stroke Length	mm	350	350	350	400	400	
Strokes per Minute	spm	~50	~50	~50	~50	~50	
Pendulum Motion Stroke Length	mm	100	100	100	140	140	
Pendulum Motion Stroke per Minute	spm	~80	~80	~80	~80	~80	
Tonnage Rating Point	mm	6.5	6.5	6.5	6.5	6.5	
Die Height	mm	700	700	800	800	800	
Slide Adjustment	mm	250	250	300	300	300	
Slide Area (LR x FB)	1	mm	2500×1400	2500×1550	2800×1550	3100×1550	3400×1550
	2		2800×1400	2800×1550	3100×1550	3400×1550	3700×1550
	3		3100×1400	3100×1550	3400×1550	3700×1550	4000×1550
	4		3400×1400	3400×1550	3700×1550	4000×1550	4300×1550
Bolster Area (LR x FB)	1	mm	2500×1400	2500×1550	2800×1550	3100×1550	3400×1550
	2		2800×1400	2800×1550	3100×1550	3400×1550	3700×1550
	3		3100×1400	3100×1550	3400×1550	3700×1550	4000×1550
	4		3400×1400	3400×1550	3700×1550	4000×1550	4300×1550
Bolster Thickness	mm	180	250	250	250	300	
Window Opening	Bolster Only (FB x UD)	mm	1100×600	1300×600	1500×700	1500×700	1500×700
Upper Die Weight	Ton	4	5	5.5	6	7	
Required Air Pressure	MPa	0.55	0.55	0.55	0.55	0.55	
Bolster Height	Fixed Bolster	mm	850	850	850	850	850
	Rolling Bolster		660	660	660	740	740
Die Cushion	Type		Cylinder	Cylinder	Cylinder*	Cylinder*	Cylinder*
	Capacity	kN	600	1000	1200**	1500	1500
	Stroke Length	mm	200	200	220	220	220
	Adjustment	mm	200	200	220	220	220
Die Cushion Area (LR x FB)	1	mm	2000×900	2000×950	2300×1300	2600×1300	2900×1300
	2		2300×900	2300×950	2600×1300	2900×1300	3200×1300
	3		2600×900	2600×950	2900×1300	3200×1300	3500×1300
	4		2900×900	2900×950	3200×1300	3500×1300	3800×1300

\* For selecting 1200kN, 1500kN and 2000kN air cylinder die cushions, bolster area in FB should be least 1700mm, cushion area in FB should be 1300mm.

\*\* For SDG2-800-1 only 1000kN die cushion is available.

※ This specification is subject to change without notice.

## Standard Attachments

- Servo System
- Safety Brake System
- Motorized Slide Adjustment
- Tonnage Monitor
- Programmable Motion Profiles
- Job Storage Capacity - Up to 200
- Electronic Die Release
- Programmable Cam Switches
- Portable Operator Stand
- Electrical Overload Protection
- Automatic Recirculating Lubrication System
- Total Counter
- Preset Counter
- Maintenance Counter
- Misfeed Socket
- Air Outlet
- Air Ejector
- Anti-Repeat Safety Circuit
- Touch Panel
- Safety Fence
- Ladder
- Tool Box
- Die Lamp
- Embedded Operator Console
- Safety Light Curtain
- Anti Vibration Mounts
- Automatic Counter Balance Pressure Adjustment

## Optional Attachments

- Die Cushion
- Die Cushion Stroke Adjustment
- Die Cushion Locking Device
- Die Cushion Pin Lifting Device
- Quick Die Change System
- Rolling Bolster
- Pressurized Air Supply
- Safety Door
- Safety Block
- Work Area Light for Front & Rear
- Remote Monitoring System



# SDE2 series

Model		SDE2-400	SDE2-600	SDE2-800	SDE2-1000	SDE2-1200	
Tonnage Capacity	kN	4000	6000	8000	10000	12000	
Stroke Length	mm	600	600	800	800	800	
Strokes per Minute	spm	30	30	25	25	25	
Tonnage Rating Point	mm	13	13	13	13	13	
Die Height	mm	700	800	1000	1000	1100	
Slide Adjustment	mm	300	400	500	500	500	
Slide Area (LR x FB)	1	2500×1400	2500×1550	2800×1700	3100×1700	3400×1700	
	2	2800×1400	2800×1550	3100×1700	3400×1700	3700×1700	
	3	3100×1400	3100×1550	3400×1700	3700×1700	4000×1700	
	4	3400×1400	3400×1550	3700×1700	4000×1700	4300×1700	
Bolster Area (LR x FB)	1	2500×1400	2500×1550	2800×1700	3100×1700	3400×1700	
	2	2800×1400	2800×1550	3100×1700	3400×1700	3700×1700	
	3	3100×1400	3100×1550	3400×1700	3700×1700	4000×1700	
	4	3400×1400	3400×1550	3700×1700	4000×1700	4300×1700	
Bolster Thickness	mm	180	250	250	250	300	
Window Opening	Bolster Only (FB x UD)	mm	1200×600	1350×700	1500×900	1500×900	1500×1000
Upper Die Weight	Ton	5	6	7	7	8	
Required Air Pressure	MPa	0.55	0.55	0.55	0.55	0.55	
Bolster Height	Fixed Bolster	mm	850	850	850	850	850
	Rolling Bolster	mm	660	660	660	740	740
Die Cushion	Type		Cylinder	Cylinder	Cylinder	Cylinder	Cylinder
	Capacity	kN	600	1000	1200	1500	1500
	Stroke Length	mm	200	200	220	220	220
	Adjustment	mm	200	200	220	220	220
Die Cushion Area (LR x FB)	1	2000×900	2000×950	2300×1300	2600×1300	2900×1300	
	2	2300×900	2300×950	2600×1300	2900×1300	3200×1300	
	3	2600×900	2600×950	2900×1300	3200×1300	3500×1300	
	4	2900×900	2900×950	3200×1300	3500×1300	3800×1300	

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## Standard Attachments

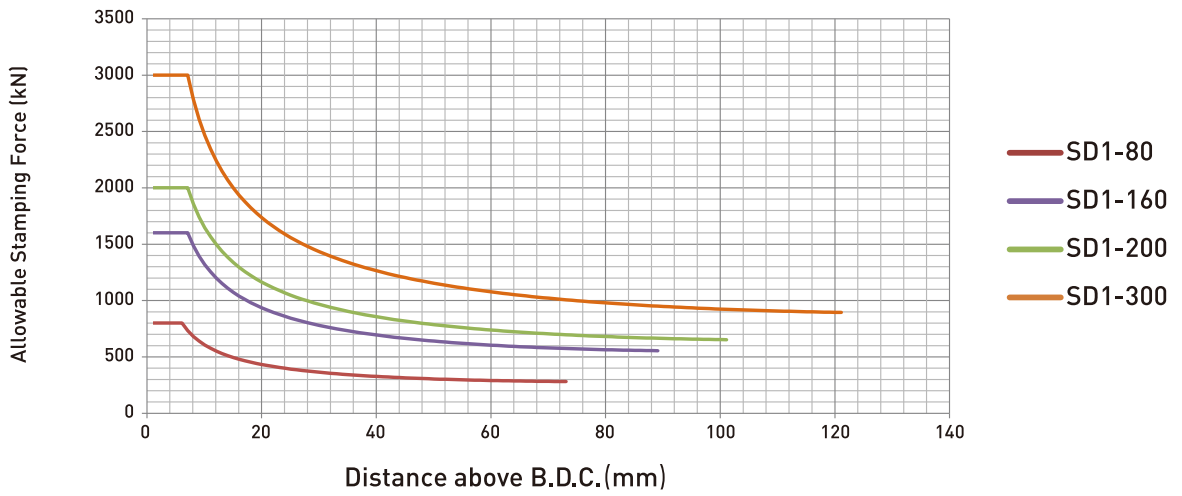
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- Safety Brake System
- Motorized Slide Adjustment
- Tonnage Monitor
- Programmable Motion Profiles
- Job Storage Capacity - Up to 200
- Electronic Die Release
- Programmable Cam Switches
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- Touch Panel
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- Safety Light Curtain
- Anti Vibration Mounts
- Automatic Counter Balance Pressure Adjustment

## Optional Attachments

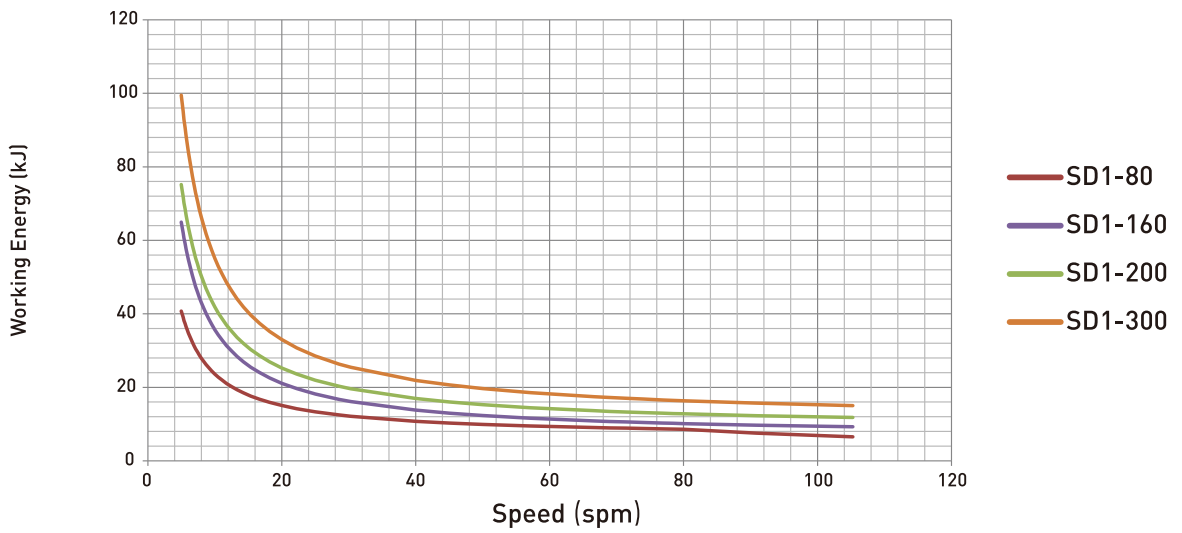
- Die Cushion
- Die Cushion Stroke Adjustment
- Die Cushion Locking Device
- Die Cushion Pin Lifting Device
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- Rolling Bolster
- Pressurized Air Supply
- Safety Door
- Safety Block
- Work Area Light for Front & Rear
- Remote Monitoring System



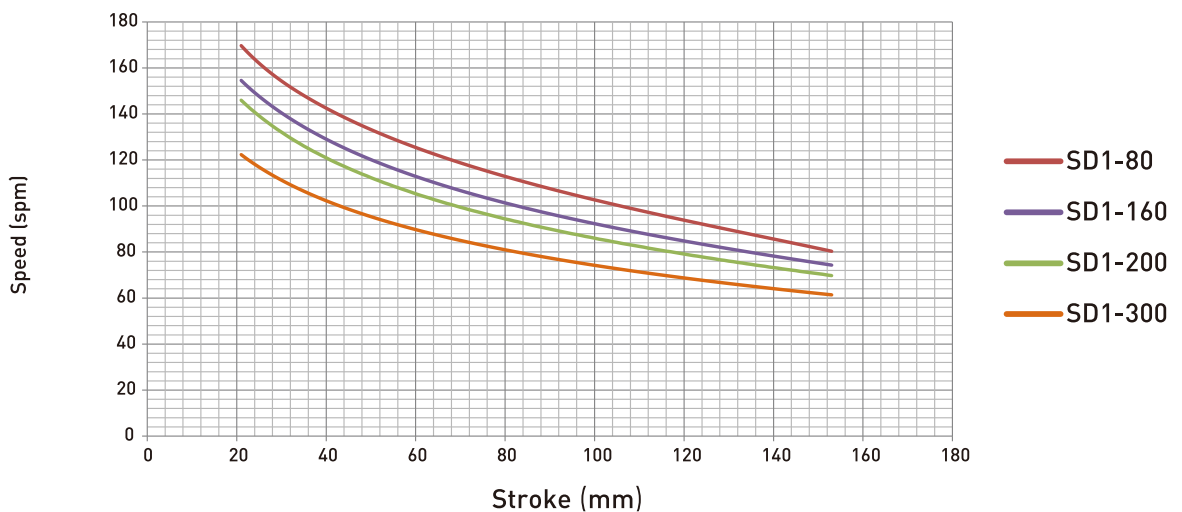
## Tonnage Curves



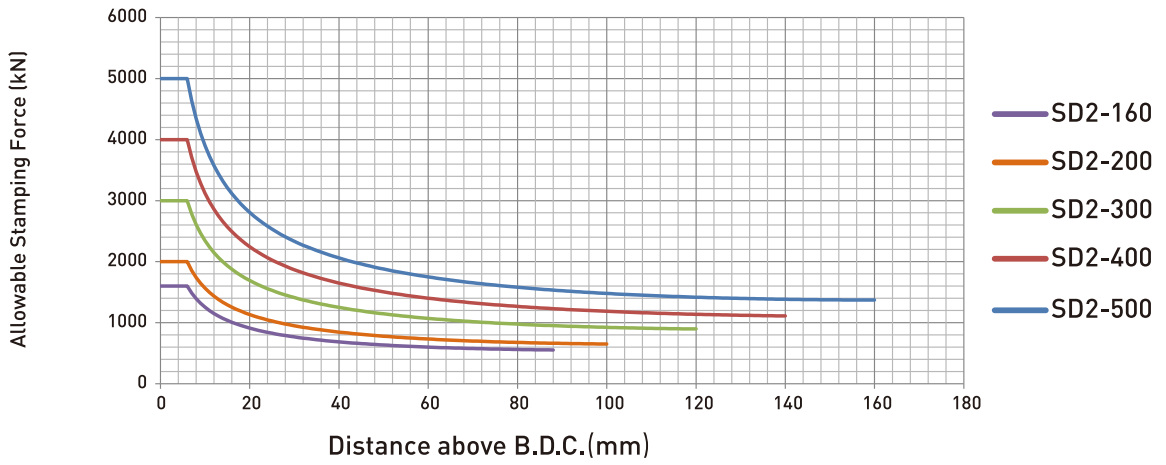
## Working Energy



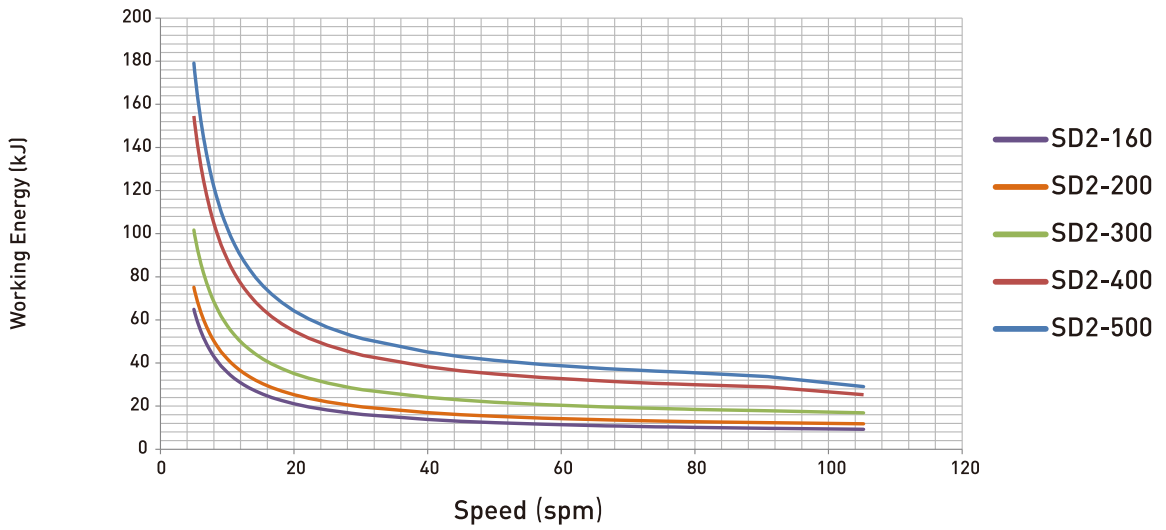
## Pendulum Motion



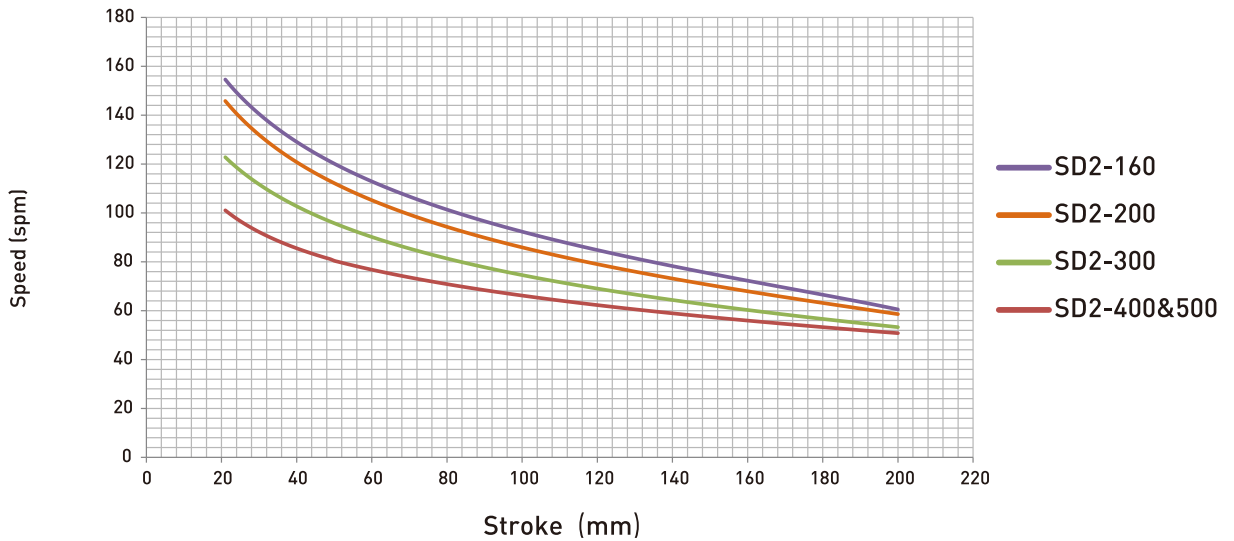
## Tonnage Curves



## Working Energy



## Pendulum Motion





SHIEH YIH MACHINERY INDUSTRY CO., LTD. (HEADQUARTERS)

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XIE YI TECH MACHINERY (CHINA) CO., LTD

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