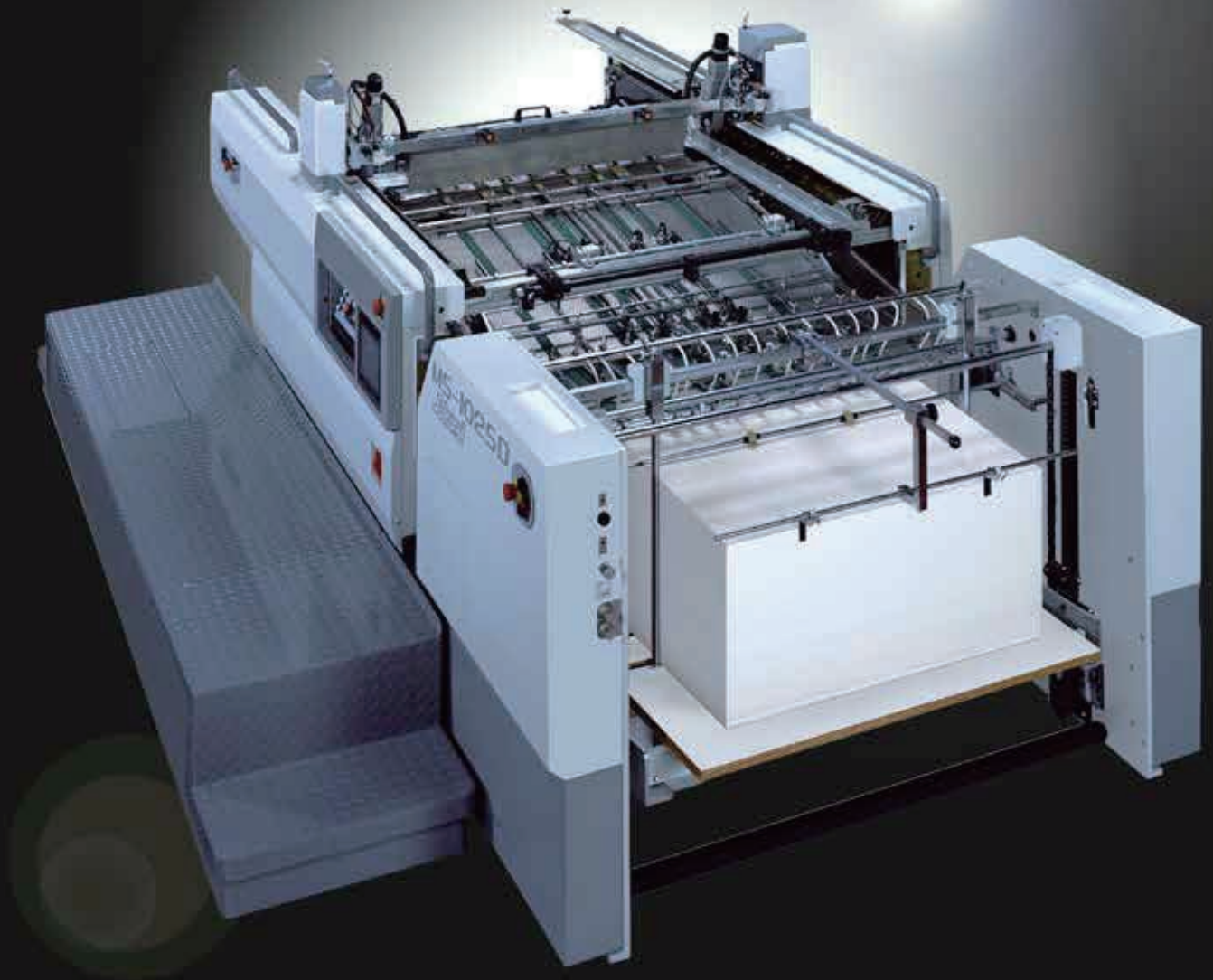
Sakurai

MAESTRO SD SERIES

Full Automatic high Precision Servo Drive Cylinder Screen Presses

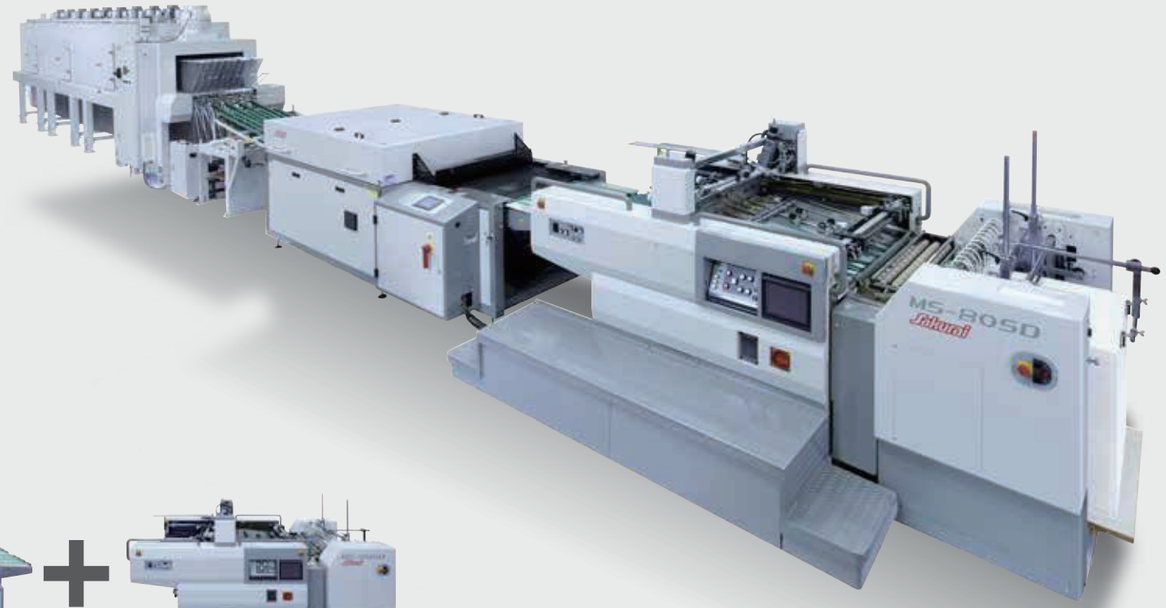
MS-80SD(800×550mm) | **MS-102SDw**(1,140×788mm)



MS-SD Series

Full Automatic high Precision Rotary, Servo Drive Screen Presses

With the application of independent servo drive motors, the movement of the screen frame and the cylinder rotation are driven separately on the MS-SD Series. This makes it possible to print with even squeegee pressure at a constant speed. Print elongation can be corrected and various screen frame sizes within the range specified are available to use. The print start position can be changed and the squeegee and flood coater speed can be independently set. The squeegee pressure is adjusted remotely by motor and also sheet size presetting system is an option, this all provides quick make-ready time and production control with numerical figures.



MS-80UV-N UV Dryer

MS-80SD Screen Press

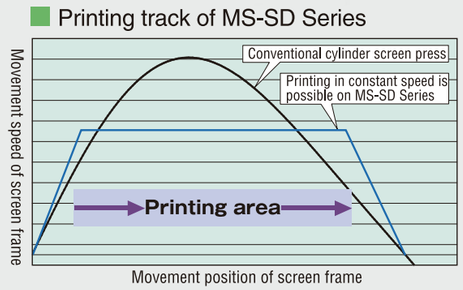
Difference between conventional cylinder screen press and MS-SD Series

Conventional cylinder screen press

One drive motor makes the printing cylinder, master frame, squeegee and flood coater move and synchronize with the combination of rack gears, pinion gears and crank motion.This method is suitable for high speed printing with less adjustment and can be used even in industrial purpose printing as well as general commercial screen printing.

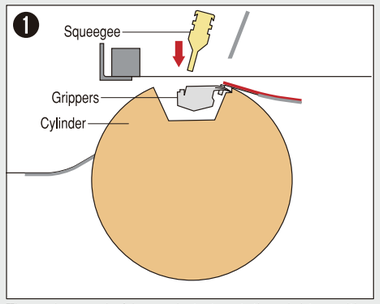
MS-SD Series

The servo drive motors applied realize independent drive for printing cylinder, master frame and squeegee/flood coater movement. Because of this method, many kinds of functions like change of printing stroke and instant change in printing speed etc. are possible. Also variety of print sizes and screen frame sizes are available. This is very suitable for industrial purpose printing requiring both printing accuracy as well as even printing film thickness.

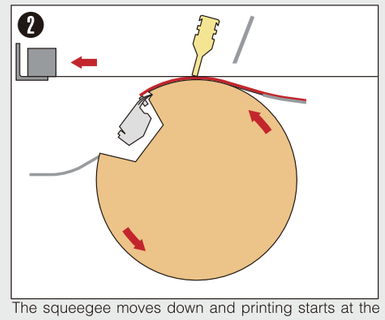


WHY “STOP” CYLINDER can achieve perfect accuracy in printing?

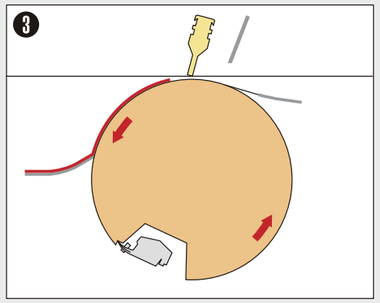
BECAUSE the substrate is gripped only while the cylinder stops, resulting in no sheet movement.



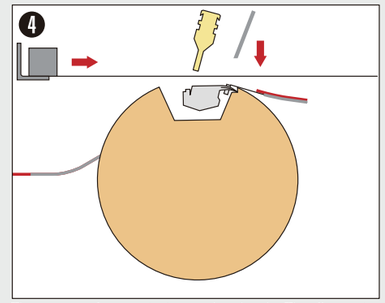
The grippers hold a substrate at the right position while the cylinder stops. Then the squeegee moves down onto the screen.



The squeegee moves down and printing starts at the top of the cylinder. The screen frame moves and the vacuum cylinder rotates.



The substrate is delivered after being released by the grippers. The cylinder continues to rotate after the substrate is delivered.



The screen frame starts moving back. The flo-coater starts moving down onto the screen when the squeegee lifts up. The cylinder keeps rotating for printing the next substrate.

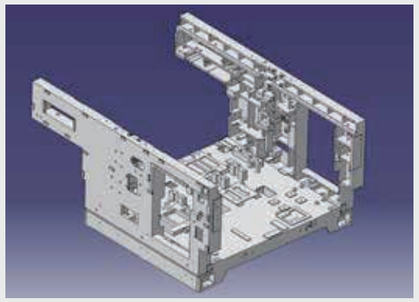
Structural features

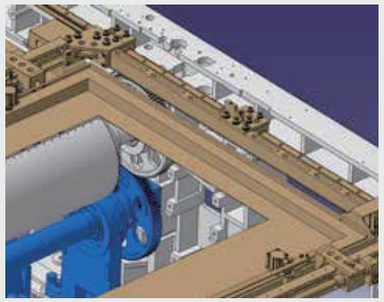
Frame and bed structure

Because the press is manufactured from heavy and solid cast iron frame and bed with precise and processing technology for large sized machines, which is based on the method cultivated from manufacturing offset printing machines, both reliability and durability enabling stable and precise printing in high speed running are realized.

Highly precise printing is realized with the adoption of precise and highly durable core parts.

Because of the adoption in precise parts like drive gears, cams and printing cylinder which are based on the original manufacturing technology for printing, the highly precise and durable machine structure is realized.





[Operating Panel]

Designed to be concise and simple to use, the keyboard control system can be operated safely and accurately by anyone. The operability and visibility are consistent because the 8.4 inch large size liquid crystal touch panel with angle adjustable structure is adopted on the operating panel.

[Registration]

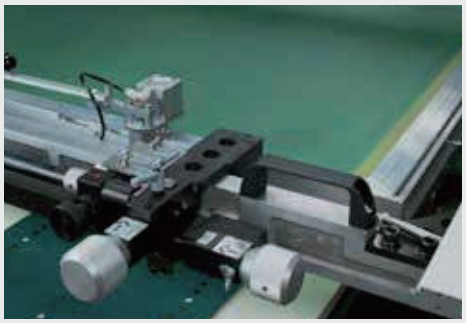
A pair of linear bearings are used in the pull/push convertible side lays. The registration system can be selected dependent on the substrate being printed. Furthermore, front lay and side lay sensors are fitted as standard so there is no need to be concerned about registration.

[Screen Frame Pull-Out]

The screen frame can be unlocked and pulled out to the delivery end of the press so that feed position of substrate can be checked, readjusted and corrected. There is no need for registration adjustment as it will return to the same position when the screen frame is returned to the print position.

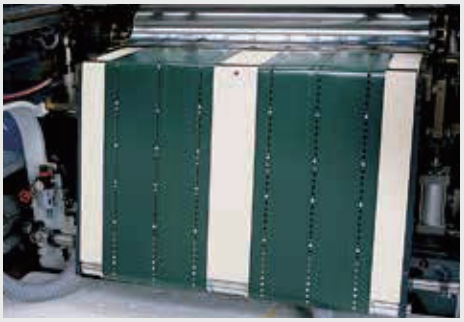
[Feeder]

Front pick-up feeder is standard. This feeding system prevents the sensitive printed surface from scratches thanks to the stock front edge suction system. It is suitable for the substrates like thin paper or films which are easily scratched. In case of multi-color printing, the surface of substrates are free from scratches.



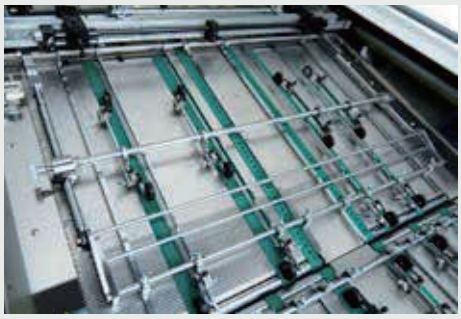
[Screen frame pneumatic lock clamp]

Simple toggle switch air cylinder clamps are fitted to the master frame carrier to hold the aluminum screen frame in position instantly and securely. Fine registration can be obtained with the micro adjuster knobs.



[Delivery board lowering device]

The delivery board can be lowered by 90 degrees to allow easy access to the screen mesh for cleaning or to the squeegee and flood coater for fixing and unfixing. The delivery belts are 280mm(11 inches) wide and transport the substrate straight and true.



[Feed board]

The press allows a large variety of print substrate to be handled as the feed board surface is designed to minimize scratching and static electricity build up during the transport of the substrate. Adjusting the rollers on the feed board is easy and simple because the rollers on the feed board can be moved simultaneously. It is ideally suited for transporting the substrates for packaging, labels, films and a variety of industrial purpose. Also, this feeder has a speed slow-down device on the feeding belt as standard.

[Squeegee]

The squeegee pressure is controlled by air and motor and is automatically adjusted simply by inputting the squeegee impression data. Sharp, vivid dot reproduction and beautiful solid printing is obtained. This new digital pressure control de-skills the job of the print operator. Repeatability is greatly improved because of the numerical control. The running speed of both squeegee and flood-coater can be set independently on the touch panel, which realizes the correspondence for a variety of printing conditions.

[Print elongation corrector]

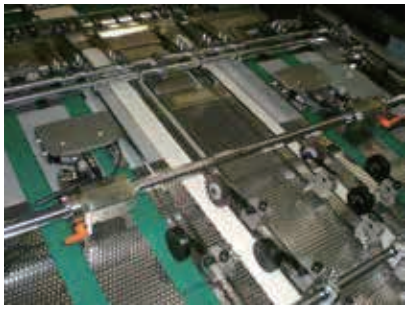
The print elongation corrector is standard equipment which enables the backlash alignment by the screen frame and printing cylinder. It is possible to make correction at five points. Therefore it shows good performance in correcting elongated images which were difficult to be corrected before.

MS-SD series
CCD camera alignment system Option

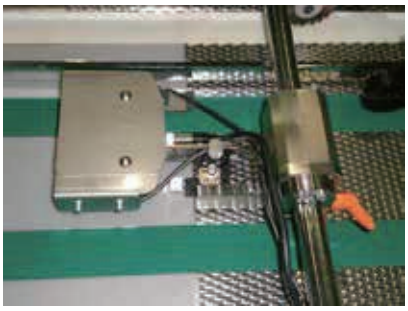
Sheet edge register system → **CCD camera alignment system**

Selectable depending on the printing purpose

CCD alignment mark is printed in the 1st color by sheet edge resister system, then use the mark is checked by CCD camera and sheet is registered accuracy by vacuum table for the following color printing. Comparing the conventional register system, highly register accuracy can be expected especially for plastic film materials.

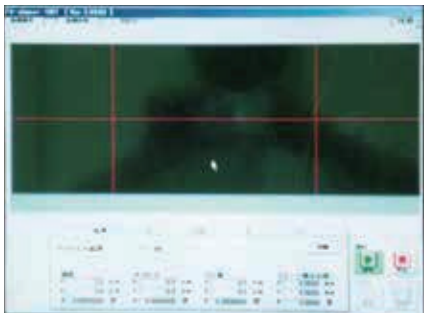


Feed board



CCD camera and lighting

Vacuum table for alignment



Monitor panel for CCD camera

Touch panel for CCD camera setting

■Spec. for CCD camera alignment (Option)

	MS-80SD		MS-102SDw	
	Sheet edge register	CCD camera alignment	Sheet edge register	CCD camera alignment
Max. sheet size (W×L)mm	800×550	750×550	1,140×788	
Min. sheet size (W×L) mm	420×270(*)	420×297	420×297	560×350
Sheet thickness mm	0.05~0.8	0.1~0.8(**)	0.075~0.8	0.1~0.8 (**)
Max. print size mm	720×500		1,090×766	
Printing speed IPH	100~2,000	100~(Approx.900)(***)	100~2,000	100~(Approx.800)(***)

* : Different from MS80SD standard spec.
** : Only flexible sheet material can be rolled on the cylinder.
*** : Max. speed is an estimation. It' s subject to the printing line and the printing conditions.

■ MAJOR SPECIFICATIONS

Model		MS-80SD	MS-102SDw
Max. sheet size (W×L)	mm	800×550	1,140×788
Min. Sheet size (W×L)	mm	350×270	420×297
Max. print size (W×L)	mm	720×500	1,090×766
Min. screen frame size (W×L)	mm	660×660	660×660
Max. screen frame size (W×L)	mm	880×880	1,340×1,206
Printable thickness	mm(*)	0.05~0.8	0.075~0.8
Printing speed	I PH(**)	100~2,000	200~2,000
Dimensions (L×W×H)	mm	2,995×2,770×1,170	3,817×3,132×1,200
Machine weight	kg	Approx.3,000	Approx.4,300
Electric consumption	Kw	Approx.13.0	Approx.15.0

*Depending on the kinds of printing substrates and printing conditions, figures may be changed.
**Printing speed denoted above depends on the printing substrates, ink, printing circumstances and specification of dryer.

Standard Accessories

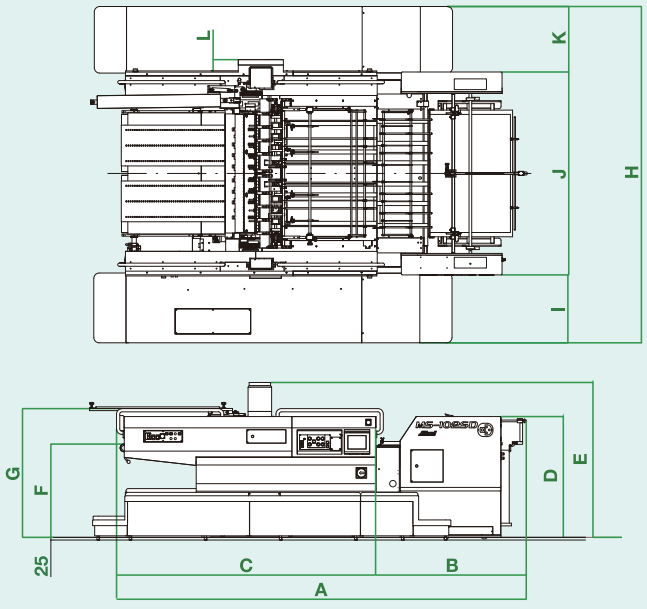
- Front pick up-feeder(Feeder belt speed slow down device)
- Press down feed rollers and bushes
- Adjusting single action feed table set-up device (for MS102SD)
- Ink drip protective flo-coater (for MS102SD)
- Screen frame pneumatic lock clamp
- LCD monitor touch panel
- Adjustable side lays (R&L) while running
- Fixed rebound stopper (delivery side)
- Squeegee impression digital control device
- Print elongation corrector
- Delivery board lowering device
- Suction feed belt
- Vacuum cylinder (hole diameter 0.8mm)
- Quick action squeegee lock device
- Screen frame pull-out device
- Total counter
- Fixed rebound stopper (feeder side)
- Built-in front lay sensor
- Swing type squeegee (for MS80SD)
- Ink drop pan (frame pull-out)
- Preset counter

Optional Accessories

- Hicky picker roller
- Air blow up static reducer device
- Air compressor (0.4Kw)
- Double sheet detectors (Mechanical/Ultra-sonic)
- Angle adjustable squeegee (for MS102SD)
- Cross over stand
- Piston sucker device
- Remote control for squeegee back /forward adjustment (for MS102SD)
- Static eliminator (bar type)
- Steel ball sheet hold down system
- Remote control for screen frame adjustment (for MS102SD)
- CCD camera alignment system
- Zero clearance modification

* Some optional accessories may not be applied, depending on the combination of standard and optional accessories.

Machine dimension



	MS-80SD	MS-102SDw
A	2995	3817
B	1115	1404
C	1880	2413
D	1095	1125
E	1418	1448
F	850	869
G	1170	1200
H	2770	3132
I	610	632
J	1550	1890
K	610	610
L	40	105

(unit: mm)

Superlative products to guarantee clients satisfaction

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ISO 9001,14001
PRODUCTION & TECHNOLOGY DEPT.
PRINTED IN JAPAN 2018.03.10