

Sakurai

Full Automatic high Precision Servo Drive Cylinder Screen Presses

MAESTRO SD SERIES

MS-80SD



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MS-80SD

Full Automatic high Precision Servo Drive Cylinder Screen Presses

Ideal for multi imposition screen printing on film materials

The MAESTRO series 80SD (servo drive) screen printing machine controls the running of the screen frame and the rotation of the cylinder with a single servo motor, so many types of operations including stroke length adjustment can be set numerically, and uniform printing is possible. Ideal for industrial applications that require accuracy and print film thickness (conductive circuits, security printing, instrument panels, etc.).

The operability has been further improved by moving the position of the touch panel and operation panel to the squeegee post, taking advantage of the voices of customers who are already using Sakurai cylinder presses.

The popular optional camera alignment has traditionally enabled position-corrected printing on sheets that do not have end face accuracy after laminating and sheets that do not have pattern position accuracy in the sheet. It is possible to perform alignment for each pattern, which was not possible with the cylinder machine.



MS-80SD + FSUV90 + NST80

Four features of the Servo Drive screen printing press

Manage printing conditions

- Multiple print conditions can be saved in the operation panel.

Can be driven at a constant speed during printing

- Contributes to the formation of a uniform ink film

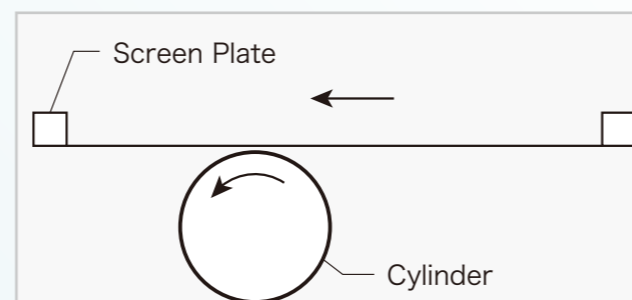
Relative velocity correction is possible during printing

- It is possible to partially correct the print length in the printing direction.
- Elongation correction device is standard equipment

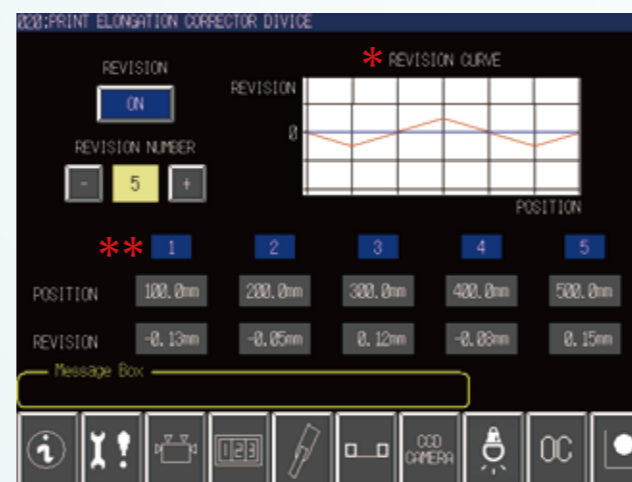
Variable printing stroke & start position

- Compatible with different plate sizes
- Print start position can be changed

Easily correct the print length from the touch panel



The MS-80SD drives the printing cylinder and screen plate with separate servomotors. In the standard state, the operation of the printing cylinder and the screen plate are synchronized, but if there is a vertical expansion and contraction change in the printing result, the vertical direction of printing is adjusted by increasing or decreasing the amount of movement of the printing cylinder based on the position of the screen plate. This eliminates the need for re-making to correct the screen plate after the start of printing, and expands the adjustable range in the multicolor printing process.



*Correction curve

The correction curve is displayed.
Blue line ...Original curve
Red line ...Curve after correction

**Correction value data

The number part lights up depending on the number of corrections. The correction operation is performed at this lit point.
Stroke ...Enter the position data from the print start position of the material.
Correction value ...Enter the correction value by the above points.

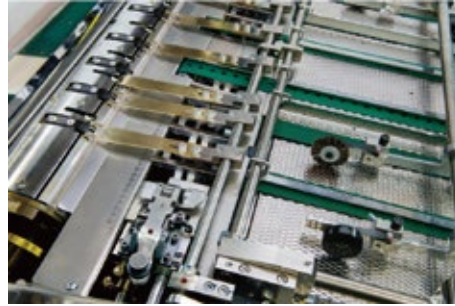
* In the example shown in the figure, it shrinks 0.13 mm at 100 mm from the beginning of printing. Also, it shrinks by 0.05 mm at 200 mm. Therefore, at 100 mm between 100 mm and 200 mm, the 0.08 mm pattern will be stretched.

Standard Accessories



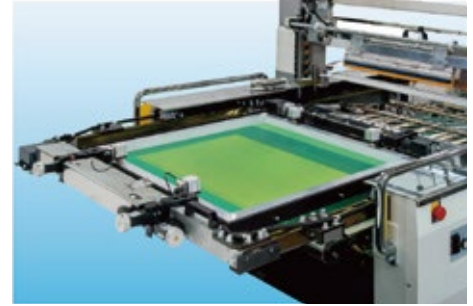
[Operating Panel]

The touch panel placed in a position with good operability prevents erroneous operation and allows you to check the current status and improve visibility. Numerical management of various printing conditions is possible with a large panel.



[Registration]

The position of the side lays can be adjusted in the width direction by inputting from the operation panel. A pair of linear bearing are used in the pull/push convertible side lays. Furthermore, front lay and side lay sensors are fitted as standard so there is no need to be concerned about registration.



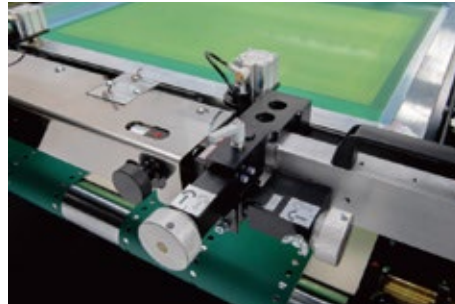
[Screen frame pull-out]

Newly adopted a mechanism that pulls out the back of the plate to a position where it is easy to clean by operating a switch. The screen frame can be unlocked and pulled out to the delivery end of 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]

The sheet pile board is stainless steel covered. This feeding system prevents the sensitive printed surface from scratched thanks to the stock front edge suction system. It is suitable for the substrates like thin paper of films which are easily scratched.



[Pneumatic screen frame lock]

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. As option, motorized screen frame position adjustment is available.



[Delivery board lowering system]

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 fitting and unfixing.



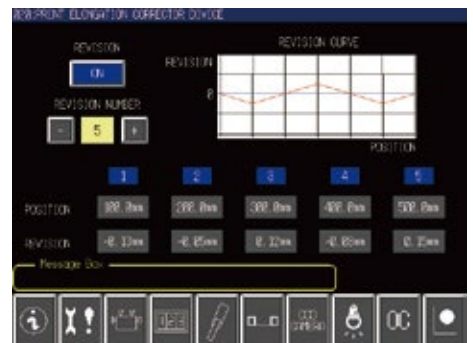
[Feed board(Embossing finish)]

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. This feeder has a speed slow-down device on the feeding belt as standard.



[Squeegee]

The squeegee pressure zero point can be set automatically from the operation panel, and the squeegee pressure can be controlled with high accuracy by inputting the pushing amount from the operation panel. In addition, workability has been improved because the front and rear positions of the squeegee can be remotely controlled (manually).



[Print elongation corrector]

Function that can correct the print length is standard equipment. It is effective for correction when the pattern data and the actual print size do not match.

MS-80SD camera alignment system **Option**

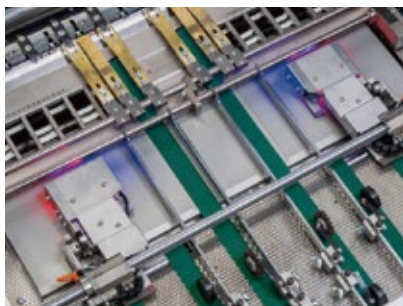
Sheet edge register system

camera alignment system

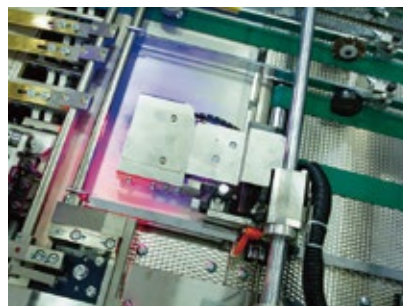
Selectable depending on the printing purpose

Camera alignment mode (alignment by camera + alignment table)

Camera alignment mark is printed in the 1st color by sheet edge register system, then camera check the mark and sheet is aligned accuracy by vacuum table for matching the good registration. Comparing the conventional register system, highly register accuracy can be expected especially for plastic film materials. camera alignment has traditionally enabled position-corrected printing on sheets that do not have end face accuracy after laminating and sheets that do not have pattern position accuracy in the sheet.



Vacuum table for alignment



camera and lighting



Touch panel for camera setting

Motorized squeegee pressure control

Proper squeegee settings are important for high quality printing.

The MS-80SD is designed so that you can set the squeegee to suit various tasks.



1. Squeegee reference position (zero point adjustment)

The reference position can be adjusted automatically from the touch panel.

2. Squeegee pressure adjustment

Adjustment can be done by inputting numerical values from the touch panel.

3. Adjustment value memory

The adjustment value can be stored in memory and recalled at the time of reprinting to be used for automatic adjustment.

4. Adjusting the squeegee position back and forth

The processing position of the squeegee can be moved from the top of the cylinder to the feeder side or the delivery side.

This allows you to adjust the print resolution and ink filling amount

MAJOR SPECIFICATIONS

Model		MS-80SD	Camera alignment (option)
Maximum sheet size (W×L)	mm	800×550 (31 1/2 X 21 3/4")	750×550 (29 5/8" × 21 3/4")
Minimum sheet size (W×L)	mm	350×270 (13 7/8 X 10 5/8")	420×297 (16 5/8 X 11 3/4")
Maximum print size (W×L)	mm	720×500 (28 3/8 X 19 3/4")	720×500 (28 3/8 X 19 3/4")
Maximum screen frame (W×L)	mm	880×880 (34 3/4 X 34 3/4")	880×880 (34 3/4 X 34 3/4")
Minimum screen frame (W×L)	mm	660×660 (25 63/64 X 25 63/64")	660×660 (25 63/64 X 25 63/64")
Sheet thickness	mm(*)	0.05~0.8 (0.001 - 0.031")	0.1~0.8(***) (0.004 - 0.031")
Printing speed	IPH(**)	300~2,000	300~Approx.900(****)
Dimensions (L×W×H)	mm	2,995×2,770×1,655 (117 29/32" X 109 1/16" X 46 1/16")	2,995×2,770×1,655 (117 29/32" X 109 1/16" X 46 1/16")
Machine weight	kg	3,700	3,700
Power consumption	kW	5.3	5.3

*: 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.

*** : 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.

Standard Accessories

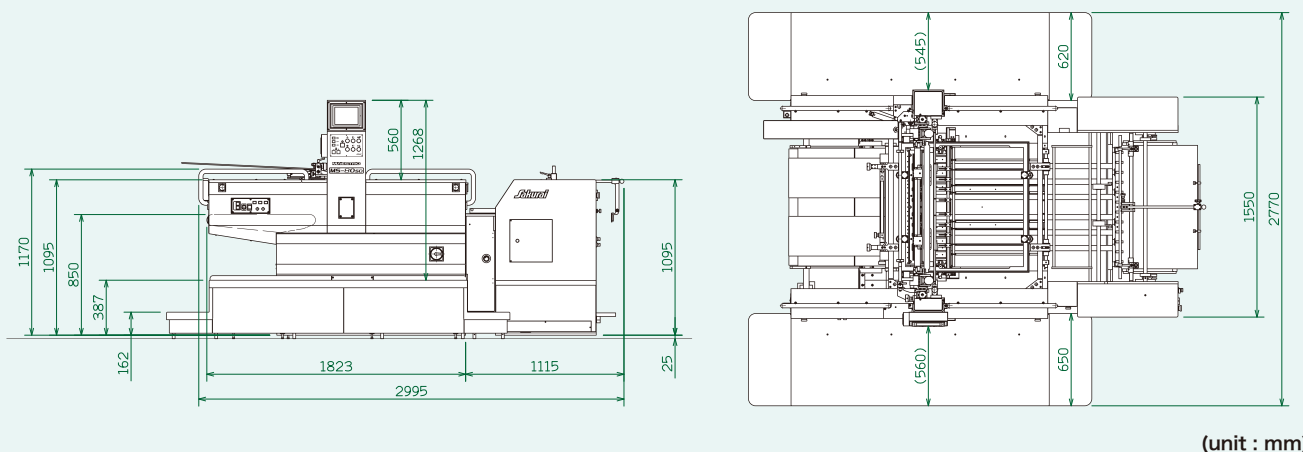
- Front pick up-feeder (Feeder belt speed slow down device)
- Press down feed rollers and brushes
- Adjusting single action feed table set-up device
- Motorized side lays position setting
- Pneumatic screen frame lock
- LCD monitor touch panel
- Fixed rebound stopper (delivery side)
- Motorized squeegee pressure control
- Remote control for squeegee back/forward adjustment
- Print elongation corrector
- Delivery board lowering system
- Suction feed belts
- Vacuum cylinder (hole diameter 0.5mm)
- 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
- Ink drip pan (at frame pull out)
- Preset counter

Optional Equipment

- Sheet cleaning roller unit
- Variety anti-static devices
- Air compressor
- Double sheet detectors (Mechanical/Ultra-sonic)
- Motorized screen frame positioning system
- Cross over stand
- Piston sucker device
- camera alignment system
- Smart cover
- SSF
(SAKURAI SMART FACTORY Printing press operation management system)

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

Machine dimension



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* Photographs appearing in this catalogue include some optional equipment. The specifications given are as of September 2021 and are subject to further change for improvement, together with the content of the photographs.

Superlative products to guarantee clients satisfaction

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