

THIEME

THIEME 500



Semi-automatic, flatbed, clamshell

screen printing machine

Details of the THIEME 500

The 500 boasts a welded, torsion-resistant chassis from heavy-gauge steel profiles. Sound-absorbing side paneling is standard for lower-noise levels (<74 DbA).

Printing Table

The printing table consists of a sandwiched construction with a wear-resistant, oxide layer of anodized aluminum. Off-contact distance can be infinitely adjusted up to 40 mm (1½"). This adjustment is performed by turning the handcrank or wheel which is located on the operator side of the press.

The height adjustment is indicated on a graduated scale. Calibration spindles provide fine register adjustment in three axis with a +/- 10 mm (2/5") range of adjustment.

Vacuum System

A silent running vacuum blower with high-volume air flow holds the substrate reliably in position by means of 1 mm (1/26") holes, on the print table surface, on 20mm (4/5") centers.

THIEME Squeegee unit (pat.)

Pneumatic "inversion" cylinders are made responsible for the changeover from printing to flooding. The squeegee pressure is controlled pneumatically, with automatic adjustment of parallelism to the plane of the printing table. The angles of squeegee and flood-coater are infinitely adjustable, were contact with the screen is never lost. The insertion and removal of the squeegee takes place in a matter of seconds with integrated, quick-action camlocks, using no tools or separate clamping devices.

Squeegee control

Squeegee and flood-coater speeds are infinitely and independently adjustable. The squeegee stroke length is infinitely adjustable.



Head and screen frame mounting

In order to minimize the amount of the ink running to the rear of the screen-frame well, the printing head is designed to open at a lower angle than other clamshell-style presses. The opening and closing of the printing head is mechanically controlled for a smooth, non-hesitating travel. A quiet-running machine with the lowest possible air movement is a result of this specialized design. Cleaning is optimized by the print

head opening to a wide accessible opening angle.

The screen frame mounting is accomplished by easily inserting the frame, cassette style, from the front of the machine. The screen frame support bars are easily moved to accommodate different frame sizes. For screen frame positioning the machine is equipped with a three-point positioning device.

Technical Data

Type of machine	510		520		530	
print size (mm inch)	550 x 750	22 x 30	750 x 1050	30 x 41	1000 x 1400	39 x 55
frame size max. (mm inch)	1000 x 1100	39 x 43	1200 x 1400	47 x 55	1450 x 1750	57 x 69
frame height max. (mm inch)	50,4	2	50,4	2	50,4	2
print table – external dimension (mm inch)	800 x 950	31 x 37	1000 x 1250	39 x 49	1250 x 1600	49 x 63
size of vacuum field (mm inch)	585 x 765	23 x 30	780 x 1065	31 x 42	1035 x 1410	41 x 56
table height adjustm. (mm inch)	0–40	0–1,6	0–40	0–1,6	0–40	0–1,6
squeegee path max. (mm inch)	680	27	880	35	1130	44
squeegee length max. (mm inch)	900	35	1200	47	1550	61
squeegee speed (m/sec inch/sec)	0,1–1,25	4–50	0,1–1,25	4–50	0,1–1,25	4–50
max. speed* (cycl/h)	1000		950		880	
overall machine dimensions l x w x h (mm inch)	1560 x 1360 x 1320		1760 x 1660 x 1320		2010 x 2010 x 1320	
	61 x 54 x 52		69 x 65 x 52		79 x 79 x 52	
weight (kg lb)	620	1367	680	1500	770	1698
floor dimensions w x d (mm inch)	1250 x 1130	49 x 44	1550 x 1330	61 x 52	1900 x 1580	75 x 62
working height print table (mm inch)	1015 x 1085	40 x 43	1015 x 1085	40 x 43	1015 x 1085	40 x 43
table adjustment in 3 axes (mm inch)			+/- 10	0,4		
power supply (V)			230 / 400			
circuit connection (kW)			5			
consumption (A)			12A 230V / 7,5A 400V			
compressed air consumption (l/min.)			3			
operation pressure (bar)			6			

* Calculated max. machine output

All technical information are not binding and subject to be changed

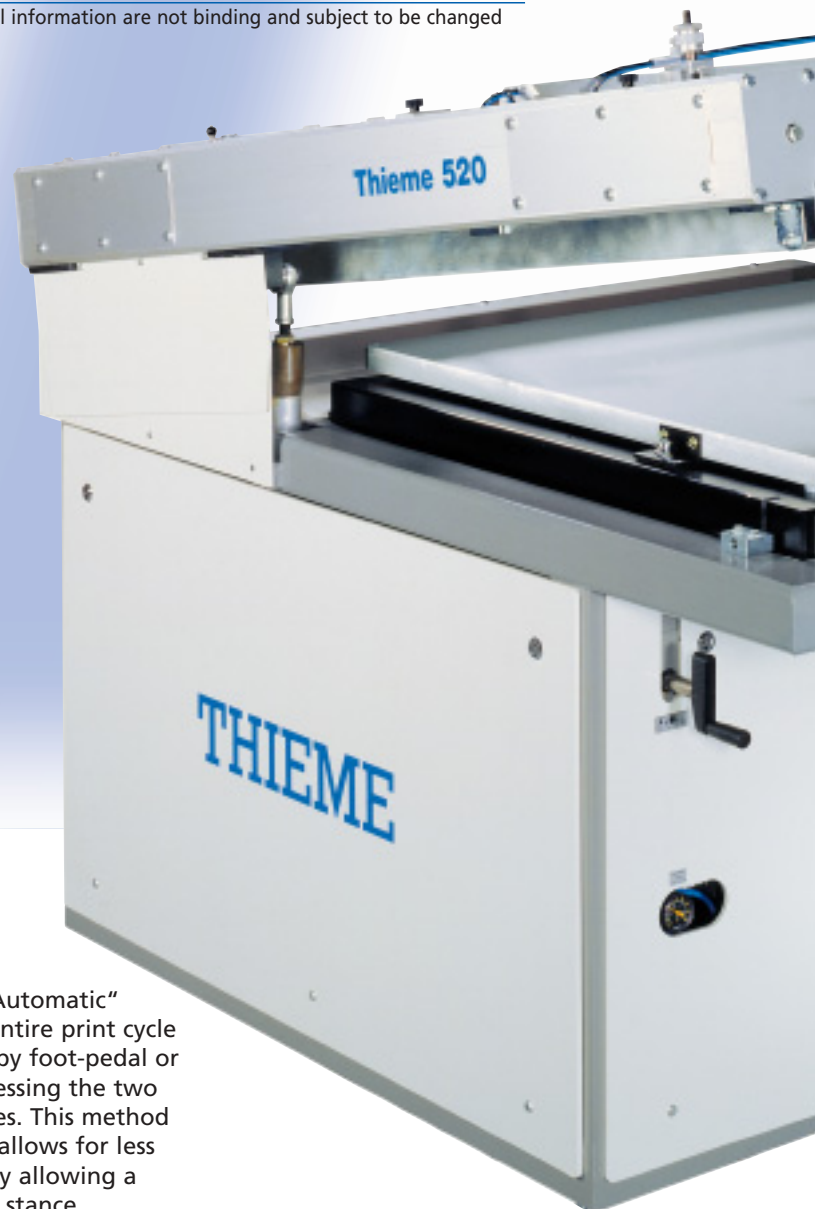
Peel-off device

The peel-off height is infinitely adjustable from 0 to 5 mm per 200 mm (0 to 1/5" per 8") of stroke length, or, a maximum rate of peel lift of 2.5 mm/linear cm (1/4"/linear inch). The peel-off datum or starting point is infinitely adjustable across the squeegee stroke length. The zero-degree flood action is designed to lower the screen to its beginning position of being parallel to the substrate before the flood stroke initiates, and results in a more uniform ink coating on the screen. This is useful in four-color process printing, to minimize dot gain; in the printing of transparent inks, to maintain a more uniform ink density; in electronics, when striving to achieve constant resistance values using carbon inks.

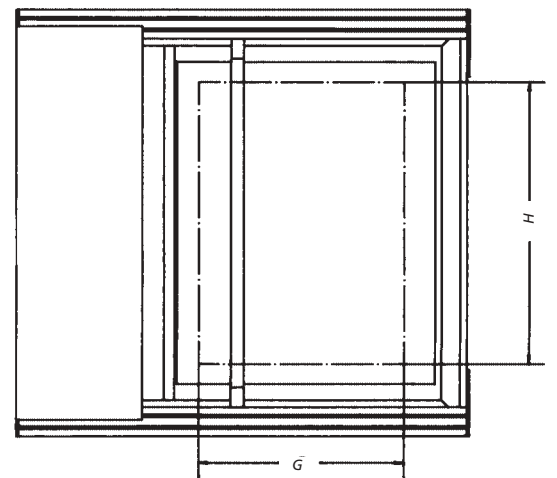
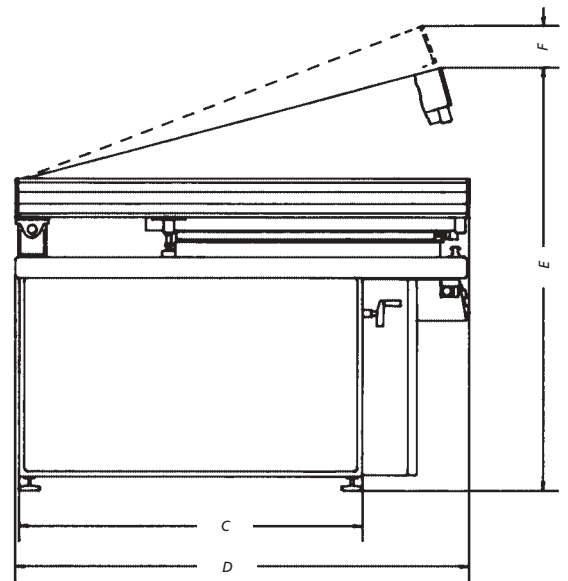
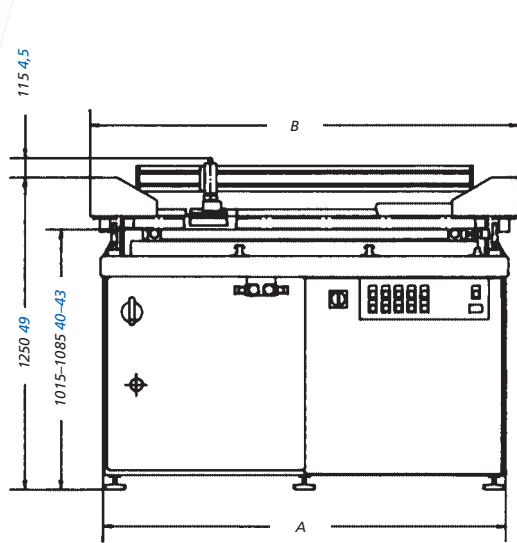
THIEME Control

The THIEME 500 is equipped with easy to use dial switches, with three operation types: "Set-up",

"Print-cycle" or "Automatic" operation. Each entire print cycle is initiated either by foot-pedal or simultaneously pressing the two mushroom switches. This method of cycle initiation allows for less working fatigue by allowing a more comfortable stance.



msshell screen printing machine



Dimensions (mm inch)

Type	510	520	530
A	1257 49	1557 61	1907 75
B	1356 53	1656 65	2006 79
C	1130 44	1330 52	1580 62
D	1558 61	1758 69	2008 79
E	1519-1589 60-63	1560-1630 61-64	1636-1706 64-67
F	142 5,6	162 6,4	186 7,3
G	585 23	780 31	1035 41
H	765 30	1065 42	1410 56



THIEME 500

Semi-automatic, flatbed, clamshell screen printing machine.

The THIEME 500 combines new technology with a traditional, space-saving design.

The result:

- Compact formats
- Low profile print head rise
- User friendly operation
- Fast production speeds
- Shorter set-up times due to an easily-accessed screen-frame mounting system
- Superior work results using the patented THIEME Hi-Tech Squeegee Unit
- Flexible operation by means of adjustable drive systems

High quality art reproductions and other small to medium job run sizes are ideal for the THIEME 500.

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