Selective printing and dipping of components

Ersa Dip&Print Station



The Ersa Dip&Print Station enables effective preparation of multiple component body types before rework. Fluxes or solder pastes can be applied to the solder connections precisely, reproducible and very easy in handling.

Optional Dip-in stencils allow for easy flux or solder paste dipping. This process is suitable for many BGA and fine-pitch type SMD components. The component connections are simply dipped into a defined reservoir of flux gel or solder paste.

Using a component specific print-stencil for a given SMD, e.g. QFN / MLF types and others can be printed very easily with a precise solder paste amount.

In the printing process the component is fixed to the stencil and printed with solder paste on its bottom side. After flipping it back, the part is positioned on the PCB with the placement unit. For every ERSA Rework System there are adequate frame fixtures to attach the stencil frame of the Dip&Print station to the placement unit.

See operation also on www.ersa.com

Selective solder paste print on a component for rework (e.g. MLF 32)

08









- **04** Component ([©]), cut-out ([®]) for the component at the print stencil.
- **05** Insert the print stencil with the cut-out (⊕) face up into the stencil frame (⊕) and fix it by the screws (☉).
- O6 Place the component into the cut-out (⊕) of the print stencil. Fix the hold-down device (②) by the thumb screws (⊛). Fix the component by the hold-down thumb screw (⊗) almost no tension to the print stencil.
- **07** Turn over the stencil frame ([®]) Apply solder paste using the squeegee ([©]).
- 08 Remove the stencil frame ([®]) from the base ([⊗]). Insert the stencil frame with the component side face up into the stencil frame carrier (option) of the PL 550 or PL 650 and fix it. Open the hold-down thumb screw ([⊗]) and loosen the hold-down device ([©]) at the stencil frame ([®]).
- **09** Pick up the component with the placement head and place it to the PCB using the lowest possible pressure force.

Dipping components into flux gel or dip solder paste







- **10** Insert the dip stencil into the stencil frame ([®]) and fix it like shown in fig. 05. Apply flux gel or dip solder paste to one side of the dip cut-out.
- **11** Spread the flux gel or the dip solder paste using the squeegee. Make sure that the squeegee doesn't bend during the spreading process!
- 12 Remove the stencil frame ([®]) from the base ([®]) Insert the stencil frame with the cut-out side face up into the stencil frame carrier (option) of the PL 550 or PL 650 and fix it. Dip the component into the flux gel or dip solder paste by the placement system.



- 13 Remove the remaining flux gel or dip solder paste manually as good as possible before cleaning. Then vertically insert the stencil frame ([®]) in the two slots at the base ([®]).
- **14** Apply flux remover or a similar cleaner to remove the rest of the flux gel, solder paste or dip solder paste. Make sure that the stencil is really clean.

After the cleaning the cleaner residues in the base can be removed by an absorbent cloth.

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Dip&Print Station and Accessories







Fig.	Description	Order Code
01	Dip&Print Station (complete)	0PR100
02-A	Base of the station	
02-В	Stencil frame	0PR100-20
03-C	Dip stencil 300 µm, component max. 40 x 40 mm	0PR100-D001
03-D	Dip stencil 150 μ m, component max. 20 x 20 mm	0PR100-D002
03-E	Print stencil for MLF 32	0PR100-S002
03-F	Squeegee 70 mm x 25 mm	0PR100-R001
03-G	Print stencil for BGA 225	0PR100-S001
	Print stencil for QFN 20	0PR100-S003
03-H	Stencil frame carrier for PL 550	0PR100-PL550
03-J	Stencil frame carrier for PL 650	0PR100-PL650

Fig.	Description	Order Code
-	Dip stencil 40 x 40 mm/0,30 mm	0PR100-D001
-	Dip stencil 20 x 20 mm/0,15 mm	0PR100-D002
-	Dip stencil 20 x 20 mm/0,10 mm	0PR100-D003
-	Dip stencil 40 x 40 mm/0,10 mm	0PR100-D004
-	Dip stencil 40 x 40 mm/0,15 mm	0PR100-D005
-	Dip stencil 50 x 50 mm/0,30 mm	0PR100-D006
-	Dip stencil 50 x 50 mm/0,20 mm	0PR100-D007
-	Dip stencil 20 x 20 mm/0,05 mm	0PR100-D008
-	Dip stencil 20 x 20 /0,20 mm	0PR100-D009
-	Dip stencil 40 x 40 /0,20 mm	0PR100-D010
-	Dip stencil 40 x 40 mm/0,25 mm	0PR100-D011

Note: Additional Dip&Print stencils on request. Please send dimensions and the type of the component.

Recommended Operating Supplies

Fig.	Description	Order Code	
-	Solderpaste for printing processes, DP 5505	-	
-	Solderpaste for dip processes, µ-IFe 7	-	
Available via www.Interflux.com			

Fig.	Description	Order Code	
-	Flux cream für dip processes, IF 8300, 5 ml cartridge	4FMJF8300-005	
-	Flux cream for dip processes, IF 8300, 30 ml cartridge	4FMJF8300-030	
-	Flux residue remover, Flux Remover	0FR200	
Available via www.ersashop.com			

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