ASMPT enabling the digital world

DEK Galaxy

Advanced packaging and high-precision SMT assembly

TOP PERFORMANCE AND FLEXIBILITY **AT WAFER, SUBSTRATE AND PCB LEVEL**

Are you looking for a high-precision and extremely powerful printer? If so then the DEK Galaxy is the perfect choice. This solder paste printer combines impressive performance with extensive flexibility and allows you to switch quickly between different product requirements: Wafer bumping by solder paste printing, SMT pre-assembly for next-generation assemblies or DirEKt Ball Attach on wafers or substrates with ball diameters down to 0.2 mm.

DEK Galaxy uses proven ASMPT technologies such as linear motors for maximum speed, precision and reliability. The printer offers numerous options, including singulated tooling systems which allow for individual alignment and printing of multiple substrates within one print cycle, JEDEC wafer chuck and carriers for substrate and wafer processing. Grid-Lok® and Customized tools which enable advanced substrate support even for extremely dense assemblies.

SMEMA-compatible interfaces support easy integration with DEK solutions for wafer loading and substrate fluxing as well as with back-end devices such as grid array reflow or placement platforms. As a stand-alone offering or as part of a turnkey process configured by ASMPT specialists: DEK Galaxy is the ultimate performer.

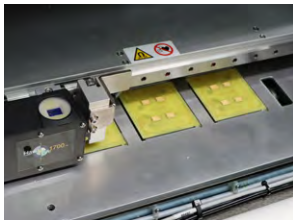
DEK GALAXY **INNOVATIONS**

Newly developed DEK Typhoon high-speed stencil cleaning system

Maximum flexibility and speed for under stencil cleaning with flexible insert types and chamber lengths for optimal cleaning performance for every process and stencil.

Material Management

The combination of DEK Paste Roll Height Monitor and DEK Automatic Paste Dispenser (cartridge or can) controls the paste quantity automatically.



DEK Multiple Alignment of Singulated Substrates (MASS)

Multiple substrates are optically aligned at the same time – a technological breakthrough for efficient and high-precision printing processes with singulated substrates.

DEK GALAXY IS YOUR **COMPETITIVE ADVANTAGE**

Maximum precision

Alignment accuracy: ± 12.5 µm,
at >2.0 cmk (± 6 sigma),
wet print: ± 17.5 µm,
at >2.0 cpk (± 6 Sigma)

High throughput

7 seconds core
cycle time

High print quality

Leading to greater
first pass yield

Fast New Product Introduction (NPI)

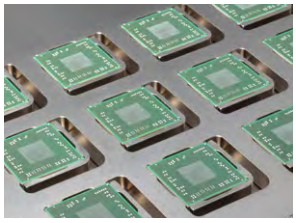
Instinctiv V9, for faster setup and
first print, easier operation and error
prevention and correction

Singulated substrate tooling

Allows for individual alignment and
processing of multiple substrates
within one print cycle

3D Stencil printing

Capable of 3D stencil printing with AgS
paste for power electronics packaging



DEK Virtual Panel Tooling (VPT)

DEK Virtual Panel Tooling (VPT) allows the printer to process multiple individual substrates in a single print cycle.

DEK HawkEye®

DEK HawkEye® quickly verifies the printing results within the printer itself.

Printer platform DEK Galaxy

Machine type	DEK Galaxy
Standard configuration	**Description**
Machine accuracy*	> 2.0 cmk @ ±12.5 µm, (±6 sigma)
Accuracy in wet printing	> 2.0 cpk @ ±17.5 µm, (±6 Sigma)
Optimum cycle time (CCT)	7 seconds
Maximum pressure range	600 mm (X) × 508.5 mm (Y)
Controller	Motion control via CAN BUS network
User interface	Touchscreen, keyboard and trackball, Instinctiv V9 software, Windows 10 IoT Enterprise
Camera	HawkEye® 1700 Digital camera with IEEE 1394 interface Multi-channel LED illumination, FOV 11.3 mm × 8.7 mm, inspection window 75 mm^2
Axle drive	High-precision linear motors and encoders with 1 µm accuracy
Squeegee pressure control	Software-controlled, motorized, with closed-loop control circuit
Template positioning	Automatic loading system with drip tray for squeegee
Stencil alignment	Motorized via actuators (X, Y, and theta)
Underside cleaning	DEK Typhoon high-speed cleaner, fully programmable with wet/dry/vacuum wiping, external solvent tank (300 mm, 400 mm, 460 mm, 515 mm)
Substrate size (min.)	50 mm (X) × 40.5 mm (Y)
Substrate size (max.)	620 mm (X)** × 508.5 mm (Y)
Machine dimensions (approx.)	2060 mm × 1500 mm × 1570 mm (81.1“ × 59“ × 61.8“) (L × W × H)
Compressed air supply	According to ISO 8573.1 Standard Quality Class 2.3.3. pressure: 5 - 8 bar Consumption, normal: 5 l/min, at 5 - 8 bar. Consumption, maximum 226 l/min, at 6 bar
Weight	840 kg, packed (depending on configuration) 680 kg, unpacked (depending on configuration)

Options	
DEK Paste Management	Automatic solder paste application and automatic height control of the paste roller
ProFlow	Optional
Closed-loop connection to SPI systems	Advanced solder paste control with ProDEK
Semiconductor options	SEMI S2/S8, SECS GEM, VPT tooling, DirEKT, Ball Placement, MASS

* The measurement of machine and repeat accuracy is carried out with process variables typical for production.
** Longboard option

ASMPT

ASMPT GmbH & Co. KG
Rupert-Mayer-Strasse 48 | 81379 Munich | Germany | Phone: +49 89 20800-22000 | Email: smt-solutions.de@asmpt.com

asmpt.com | smt.asmpt.com