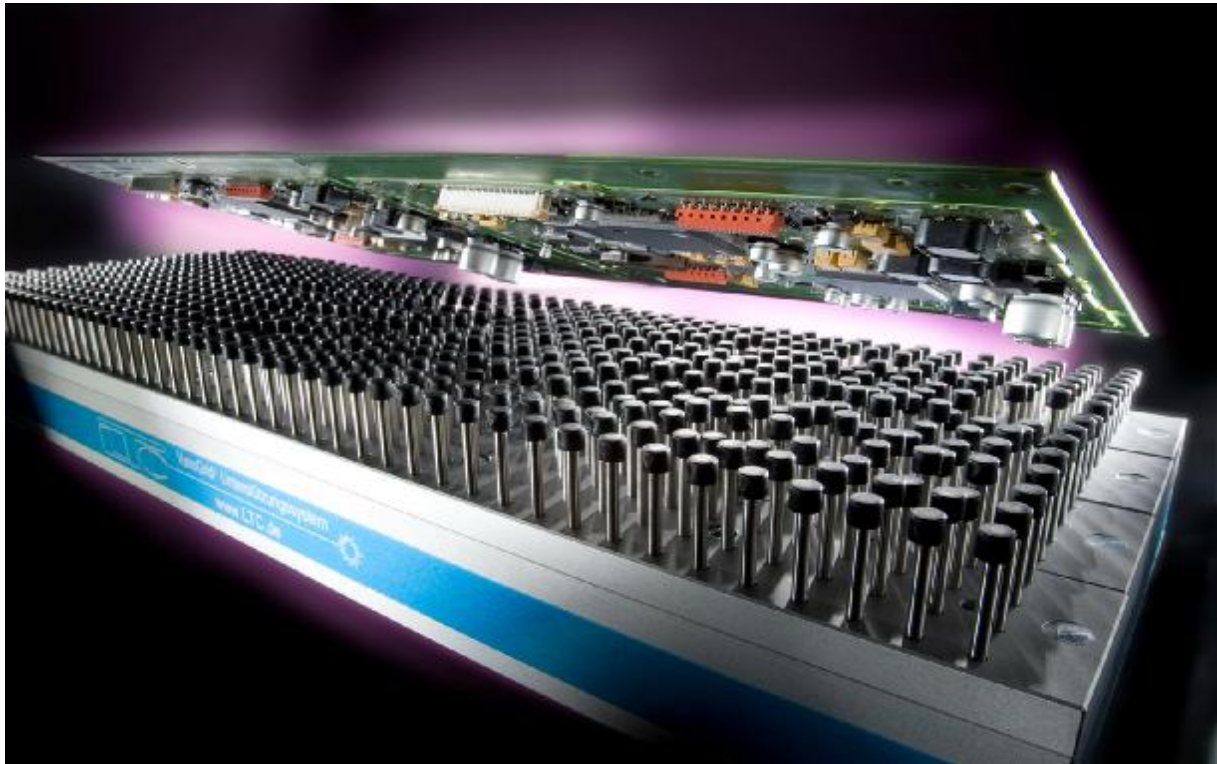


# VarioGrid<sup>®</sup> assembly support system

Unique modular grids of air suspension support pins

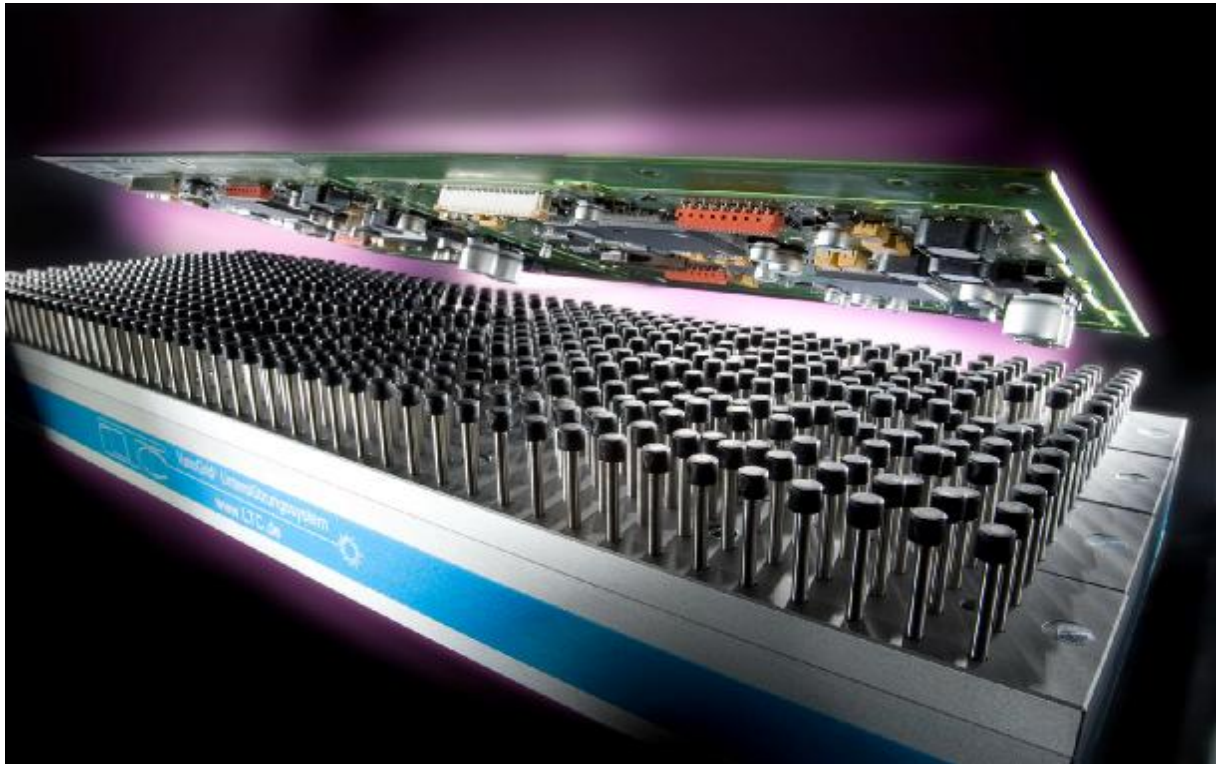
## VarioGrid<sup>®</sup> system



# VarioGrid<sup>®</sup> assembly support system

## Unique modular grids of air suspension support pins

### VarioGrid<sup>®</sup> system Introduction



### Never move another support pin

The quality of paste volume consistency and repeatability are important requirements within the printing process of electronic manufacturing. Various methods of assembly supports are used to prevent bowing or bending during the printing process. Increasing miniaturization and density of components make it even more difficult to find suitable locations for manual placement of conventional support tools. These individual set-ups have to be repeated for each product change which increases the down time of valuable machinery and finally results in increased production cost.

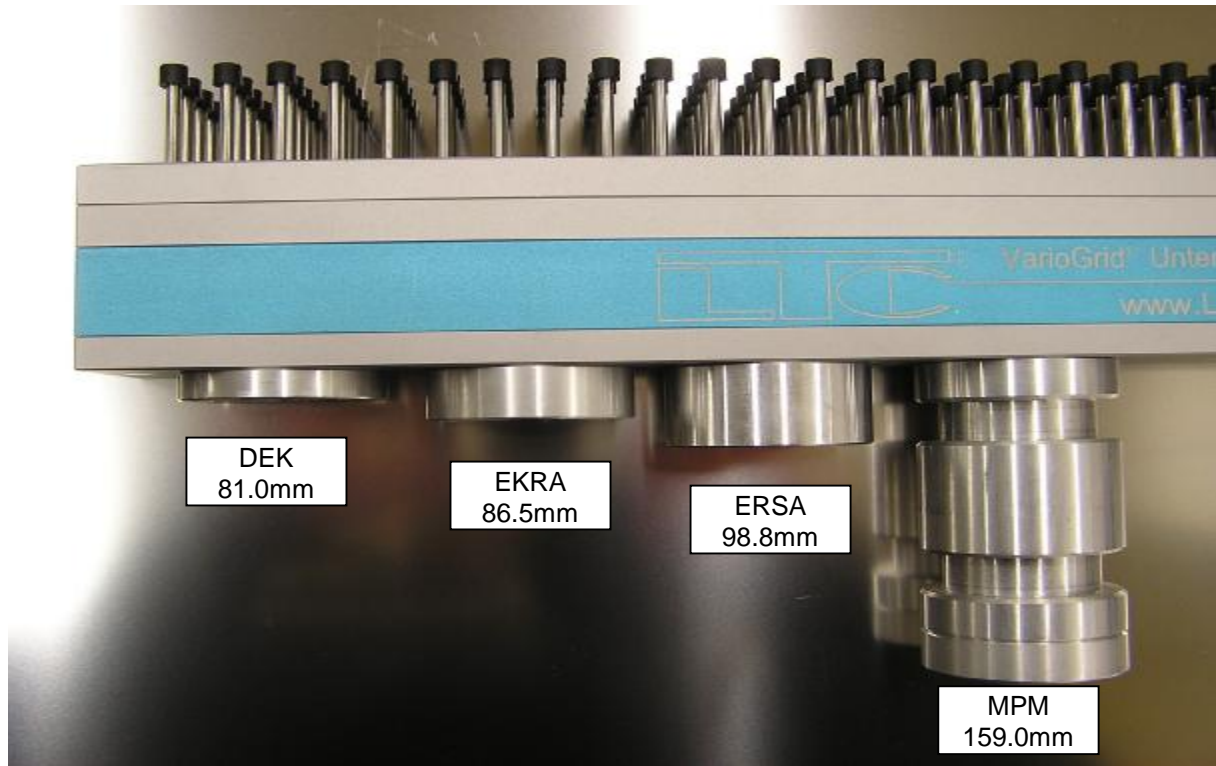
The implementation of the innovative VarioGrid<sup>®</sup> assembly support system eliminates programming time from individual tooling set-up in printing and placement applications and therefore minimizes common machine down time. The VarioGrid<sup>®</sup> support system will also eliminate rework due to misplacement of conventional support tools. This results in increased quality as well as throughput and productivity, thus leading to higher cost efficiency for each SMT production line.

The VarioGrid<sup>®</sup> assembly support system is not limited to be used only in automatic screen print systems, but also suitable for placement systems and other applications.

# VarioGrid<sup>®</sup> assembly support system

Unique modular grids of air suspension support pins

## VarioGrid<sup>®</sup> system Working heights



working heights for VarioGrid<sup>®</sup> System modules xxx-xx-74

The above mentioned dimensions refer to the different working heights of various printing or pick&place systems. Furthermore, the dimensions correspond to the total height of the VarioGrid<sup>®</sup> system module with the support pins completely extended.

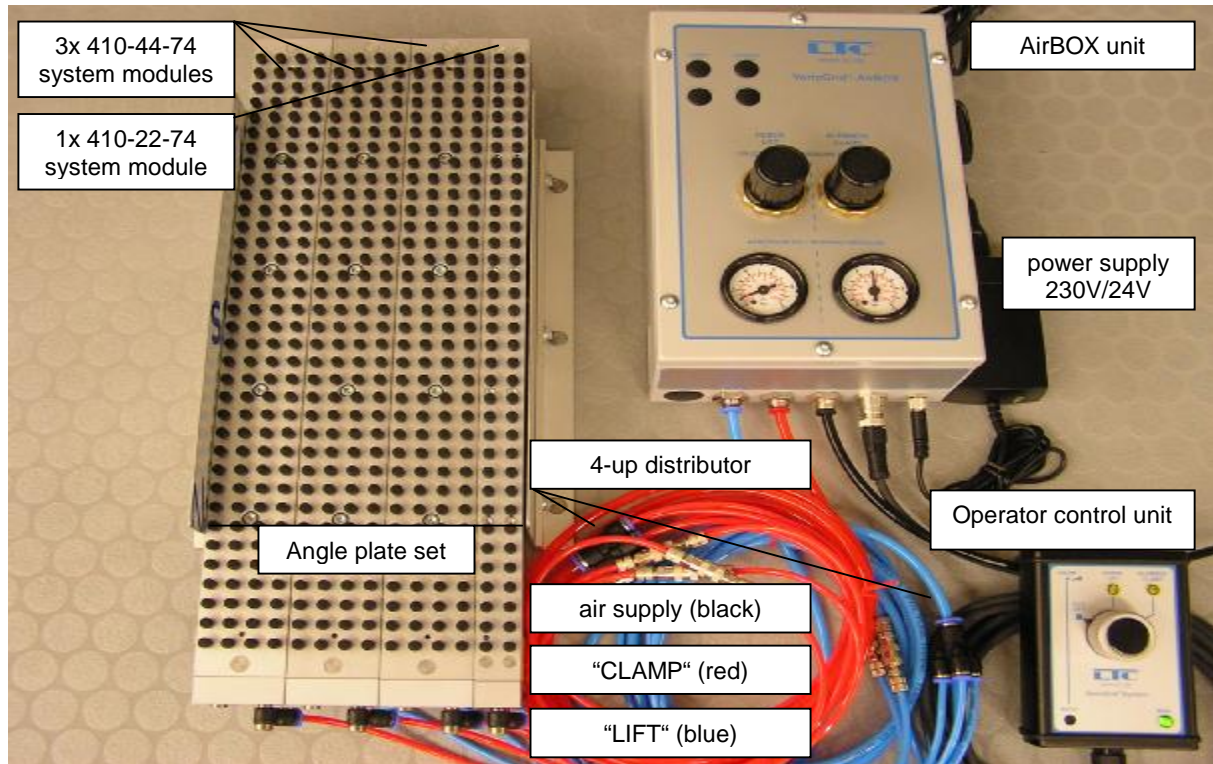
The "standard" VarioGrid<sup>®</sup> system module is 54mm high and the pin lift amounts to 20mm and therefore adds up to a max. working height of 74mm.

1. To reach the DEK working height of 81.0mm, 1 set of precision built-up 7.0mm DEK (210x0) has to be mounted onto the VarioGrid<sup>®</sup> system module.
2. To reach the EKRA working height of 86.5mm, 1 set of precision built-up 12.5mm EKRA (210x1) has to be mounted onto the VarioGrid<sup>®</sup> system module.
3. To reach the ERSA working height of 98.8mm, 1 set of precision built-up 24.8mm ERSA (210x4) has to be mounted onto the VarioGrid<sup>®</sup> system module.
4. To reach the MPM working height of 159.0mm, 1 set of precision built-up 85.0mm MPM (210x3) has to be mounted onto the VarioGrid<sup>®</sup> system module.

# VarioGrid<sup>®</sup> assembly support system

## Unique modular grids of air suspension support pins

### VarioGrid<sup>®</sup> system Configuration sample EKRA



VarioGrid<sup>®</sup> system configuration with VarioGrid<sup>®</sup> Control (incl. angle plate set for EKRA)

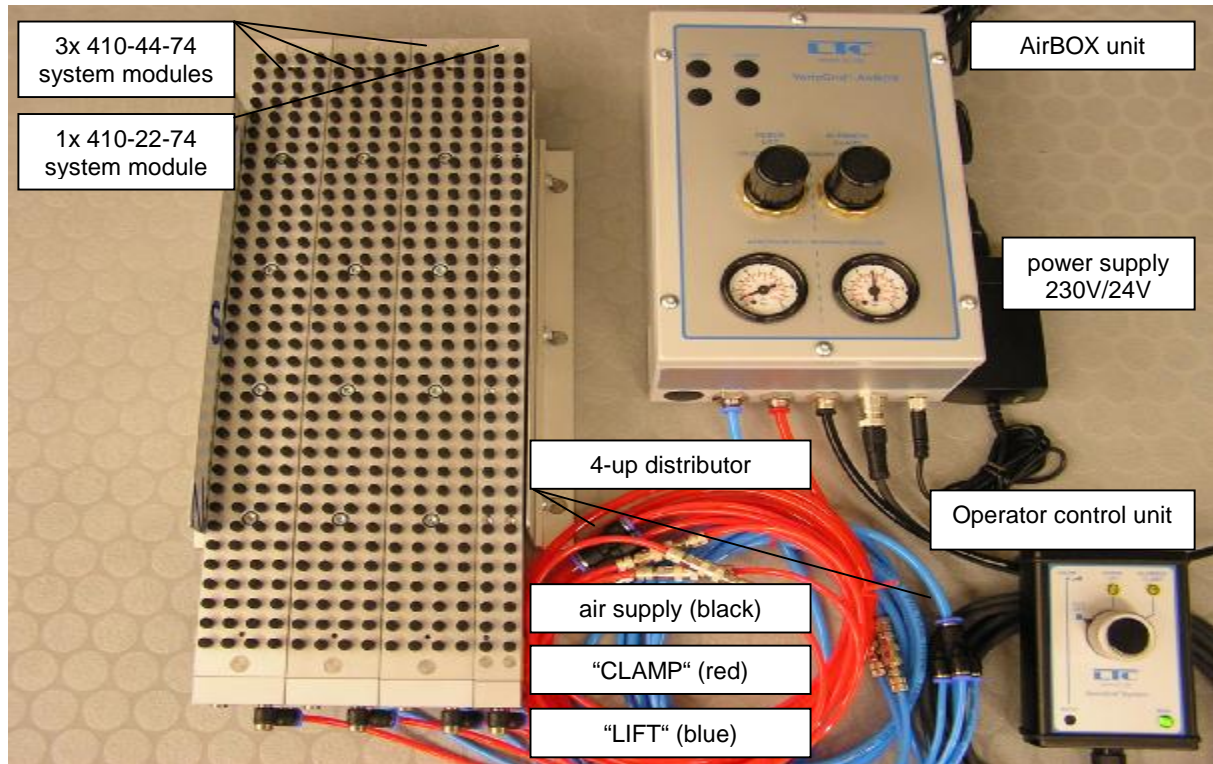
The following parts belong to the recommended VarioGrid<sup>®</sup> system configuration:

Part.-No.	Description	Quantity
21003	VarioGrid <sup>®</sup> 410-44-74	3 piece
21031	Precision build-up EKRA	3 set (already mounted)
21004	VarioGrid <sup>®</sup> 410-22-74	1 piece
21530	Air regulator (LIFT)	1 piece (already mounted)
21041	Precision build-up EKRA	1 set (already mounted)
21122	Angle plate set 275x86.5	1 set (only necessary for EKRA print systems)
21012	VarioGrid <sup>®</sup> Control	1 set, consists of:
	AirBOX unit	1 piece
	Operator control unit	1 piece
	Power supply 230V/24V	1 piece
	Main air connection	1 piece air hose, ø 6mm, blue, with ½" male coupling
	LIFT air connection	1 piece air hose, ø 6mm, blue, with 4-up distributor 4 piece air hose, ø 4mm, blue, with female couplings
	CLAMP air connection	1 piece air hose, ø 6mm, red, with 4-up distributor 4 piece air hose, ø 4mm, red, with female couplings

# VarioGrid<sup>®</sup> assembly support system

## Unique modular grids of air suspension support pins

### VarioGrid<sup>®</sup> system Configuration sample DEK



VarioGrid<sup>®</sup> system configuration with VarioGrid<sup>®</sup> Control

The following parts belong to the recommended VarioGrid<sup>®</sup> system configuration:

Part.-No.	Description	Quantity
21003	VarioGrid <sup>®</sup> 410-44-74	3 piece
21030	Precision build-up 7.0 DEK	3 set (already mounted)
21004	VarioGrid <sup>®</sup> 410-22-74	1 piece
21530	Air regulator (LIFT)	1 piece (already mounted)
21040	Precision build-up 7.0 DEK	1 set (already mounted)
21012	VarioGrid <sup>®</sup> Control	1 set, consists of:
	AirBOX unit	1 piece
	Operator control unit	1 piece
	Power supply 230V/24V	1 piece
	Main air connection	1 piece air hose, ø 6mm, blue, with ½" male coupling
	LIFT air connection	1 piece air hose, ø 6mm, blue, with 4-up distributor
		4 piece air hose, ø 4mm, blue, with female couplings
	CLAMP air connection	1 piece air hose, ø 6mm, red, with 4-up distributor
		4 piece air hose, ø 4mm, red, with female couplings

# VarioGrid<sup>®</sup> assembly support system

Unique modular grids of air suspension support pins

## VarioGrid<sup>®</sup> system Accessories

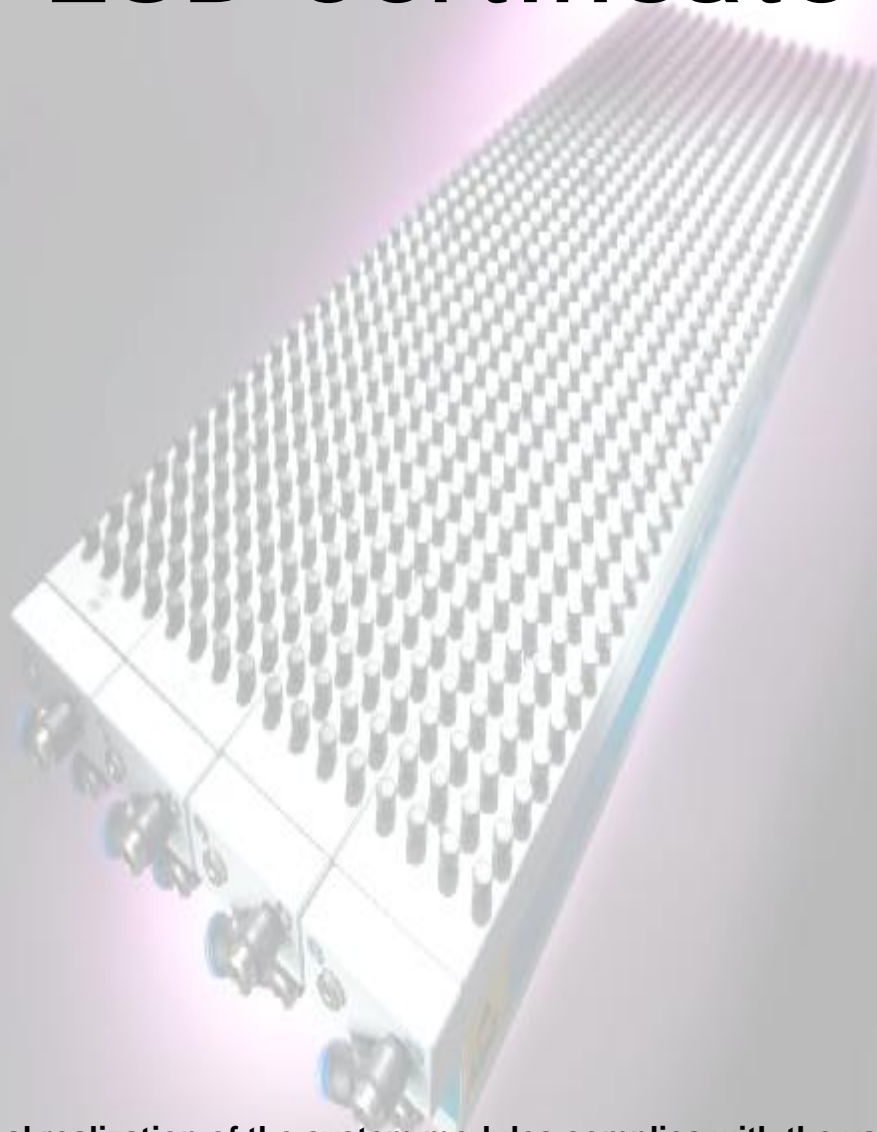
<b>Part. No.</b>	<b>Description</b>
<b>21122</b>	<b>Angle plate set 275x86.5 - EKRA</b> for working height of 86.5mm
<b>21123</b>	<b>Angle plate set 375x86.5 - EKRA</b> for working height of 86.5mm
<b>21532</b>	<b>support bracket operator control</b> for easy operation and functional display
<b>21531</b>	<b>Distributor block 6-up (lift/clamp)</b> for up to 6 VarioGrid <sup>®</sup> system modules
<b>21536</b>	<b>Distributor block 10-up (lift/clamp)</b> for up to 10 VarioGrid <sup>®</sup> system modules
<b>21537</b>	<b>Support spring kit</b> with springs, ESD-safe pin tops and special mounting tool
<b>21522</b>	<b>Air connector for module cleaning</b> complete with all connectors
<b>21542</b>	<b>Pin cover latch</b> for 22mm wide system module, covers up to three rows of pins
<b>21544</b>	<b>Pin cover latch</b> for 44mm wide system module, covers up to three rows of pins

# VarioGrid<sup>0</sup> assembly support system

Unique modular grids of air suspension support pins

VarioGrid<sup>®</sup> system module

## ESD-Certificate



The technical realization of the system modules complies with the valid ESD standards DIN IEC 61340-5-1 and DIN IEC 61340-5-2 (previously DIN EN 100015).