



Sneak Preview

SIPLACE**COMPARE**CONVENTION

The revolution in electronics manufacturing:  
**SIPLACE MultiStar**



**SIEMENS**

# Ingenious solutions are simple

Declining lot sizes, frequent product changeovers and a rapidly rising spectrum of components characterize the trends in electronics production worldwide. And each of them is “poison” for the productivity of SMT production lines.

In the past, manufacturers responded with ever more complex production and setup strategies, complex head changes and continuous line reconfigurations, all of which cost time – and therefore money – and reduce availability, productivity and efficiency.

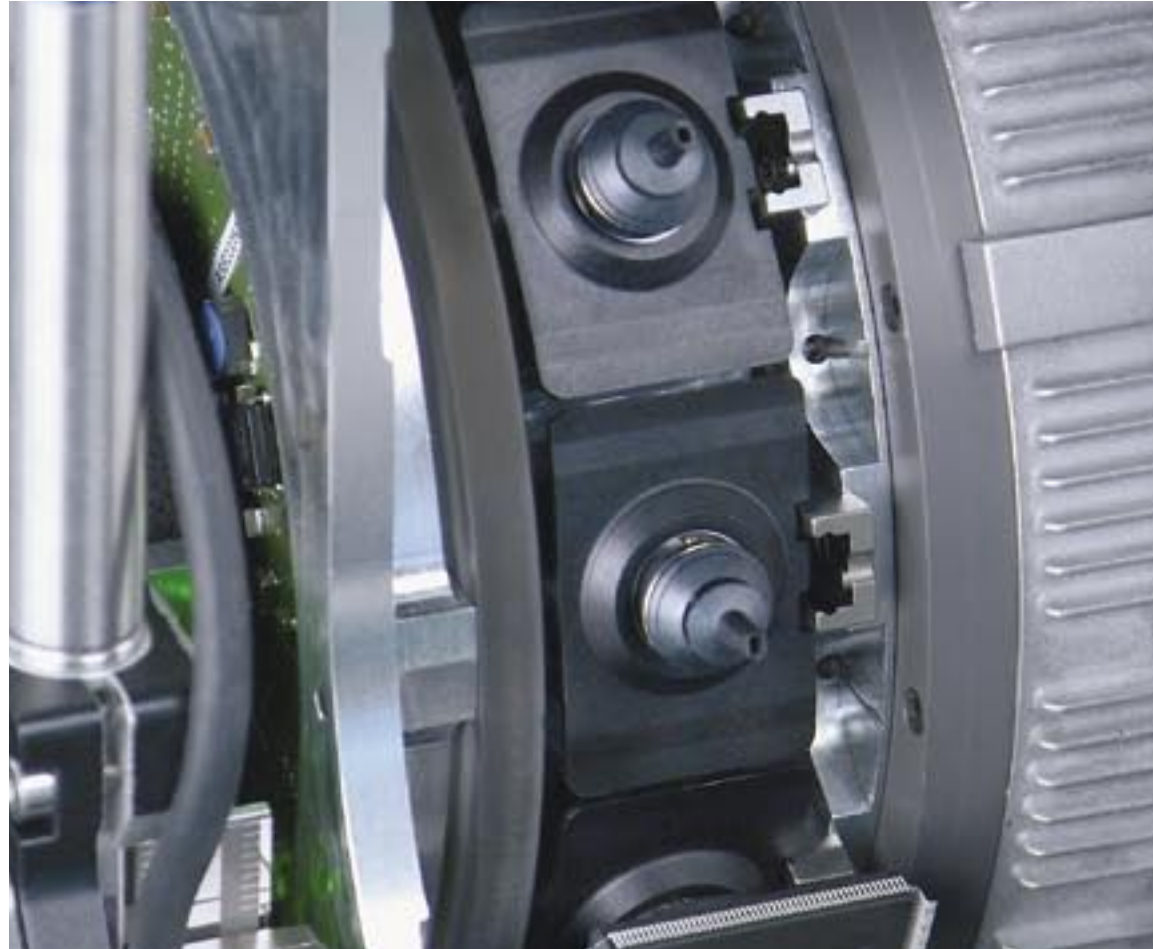
Finally, SIPLACE has come up with an ingenious solution – the new SIPLACE MultiStar CPP head. This new placement head for SIPLACE high-end machines can process a very broad component spectrum in different modes. This is a revolutionary idea that opens up new opportunities for electronics manufacturers.

## **CPP = Collect & Pick & Place**

“One for all”: The new 12-nozzle SIPLACE MultiStar CPP head processes components ranging from 01005 to 50x40 millimeters. It can do this with efficiency and speed because it operates in three different modes: the extremely fast Collect & Place mode, the highly versatile Pick & Place mode, and the Mixed mode, an intelligent combination of the above. The effect is readily apparent, because a single SIPLACE MultiStar can easily place up to 24,000 components per hour.

## **Maximum robustness**

The SIPLACE MultiStar CPP head uses the same innovative and robust technologies that set apart the 20-nozzle SIPLACE SpeedStar for the SIPLACE X-Series, but extends them to larger components. Each segment can be controlled individually via direct drives. For the seamless change between C&P and P&P modes, the new head features both a stationary camera as well as a head-mounted camera. This combination of precision drives, digital vision systems and component sensors ensures that all components ranging from super-small 01005 to large ICs can be processed with maximum speed, reliability and accuracy.



# More options for your electronics production

## Perfectly balanced lines – for any product

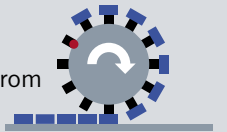
In the high-end placement machines of the SIPLACE X-Series, the multifunctional SIPLACE MultiStar CPP head provides more options for your electronics production. You can execute product changeovers quickly and easily and perfectly balance your line for all products. This new head is more than just an innovation within the SIPLACE machine platform – it represents the future of electronics manufacturing. You no longer have to switch placement heads or configurations, the SIPLACE MultiStar head selects the appropriate placement mode automatically. A MultiStar that only minutes ago operated as a fast Collect & Place head for small and medium-sized components can turn your SIPLACE X-Series machine into an end-of-line system for large components

that's as flexible as it is powerful. And it can do it on the fly just depending on the components to be placed. In short: The unique capabilities of our SIPLACE MultiStar CPP head give your SIPLACE lines maximum flexibility and speed across all products and applications.

### SIPLACE MultiStar placement modes

#### Collect & Place mode

Components ranging from 01005 to 27x27 mm



#### Mixed mode

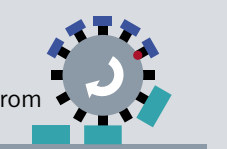
Restricted rotation

Components ranging from 01005 to 50x40 mm



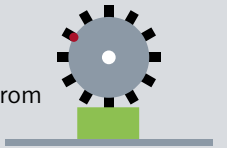
Full rotation

Components ranging from 01005 to 32x32 mm



#### Pick & Place mode

Components ranging from 01005 to 50x40 mm



### Three heads for maximum productivity

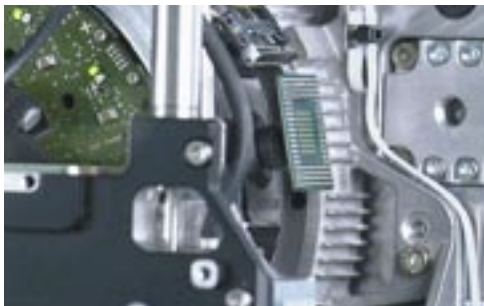
The SIPLACE MultiStar CPP placement head can do everything the proven 12-nozzle and 6-nozzle C&P heads can do – only a lot faster and with an even broader component spectrum. Where a SIPLACE X4 with four 12-C&P heads placed 53,000 components, the same machine equipped with four MultiStar CPP heads will achieve a placement performance of 80,000 cph in the future – an increase of 50 percent.

Components ranging from 01005 to 50x40 mm: The SIPLACE MultiStar CPP head can handle all of them. Only for the extremely specialized high-speed placement of very small components and for very large and odd-shaped components does the SIPLACE MultiStar need support from the SIPLACE 20-C&P SpeedStar or the highly accurate SIPLACE TwinStar.

With only three types of placement heads, your SIPLACE X-line covers the entire component spectrum and meets all requirements of modern electronics manufacturing. The benefit for you: Your SIPLACE lines become more flexible, and your maintenance and repair costs drop significantly along with the number of head models.



Particularly in combination, the SIPLACE MultiStar, SIPLACE SpeedStar and SIPLACE TwinStar deliver optimum line and production utilization.



# How your electronics production will benefit from the SIPLACE MultiStar



## **Broader component spectrum**

The SIPLACE MultiStar CPP head can process components ranging from 01005 to 50x40 mm. Paired with the SIPLACE X-Series, a single placement head now covers the vast majority of your component requirements.

## **Extreme flexibility**

Collect & Place, Pick & Place and Mixed mode – the SIPLACE MultiStar CPP head changes on the fly depending on your requirements. Your machines and lines become a lot more versatile.

## **More speed**

With a placement performance of up to 24,000 cph, the SIPLACE MultiStar CPP head surpasses the current generation of C&P heads. The performance of lines takes a giant leap forward.

## **Perfectly balanced lines**

Since the SIPLACE MultiStar is running in the optimum placement mode for each product, you can balance your lines a lot more easily – without head changes or time-consuming reconfigurations. Your lines become a lot more effective and productive across your entire product spectrum.

## **More line compatibility**

Its speed and versatility make the SIPLACE MultiStar CPP head the central and exceptionally flexible component of your machines that makes it easier to manufacture products on different lines with the same level of efficiency.

## **Lower maintenance costs**

Robust, state-of-the-art technologies ensure a high degree of availability with significantly longer maintenance intervals. Since you also need fewer heads, your maintenance and repair costs will decline in two ways.

## **Compare!**

Do you want to know in detail how the SIPLACE MultiStar CPP head can make your production more flexible, more productive and more efficient? Your SIPLACE customer representative will be happy to show you on the basis of your current or planned products and lines what positive impact the SIPLACE CPP head will have on the key performance criteria in your electronics production.

## SIPLACE MultiStar CPP

Basic features	
	Camera Vacuum sensor Force sensor Checks PCB curvature Single image per component Component sensor

Options	
	High-resolution camera Nozzle change Special nozzles Stationary camera for Pick & Place

Specifications in Collect & Place mode	
Component spectrum	01005 to 27x27 mm, up to 8.5 mm high
Speed	Up to 24,000 cph
X-Y accuracy	±55 µm at 4 sigma

Specifications in Pick & Place mode	
Component spectrum	01005 to 50x40 mm, up to 11.5 mm high
Speed	Speed: Up to 1,500 cph
X-Y accuracy	X-Y accuracy: ± 45 µm at 4 sigma

Mixed mode between Collect & Place and Pick & Place possible.

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