



HYDRA *Speedmount*™

The high-mix throughput booster

For a fast changing world

MYDATA®



High-speed mounting for an extensive range of components

In the high-mix segment, the HYDRA *Speedmount* is an undisputed leader in high-speed placement. With mounting speeds of up to 21,000 CPH, the HYDRA *Speedmount* is the obvious choice when you're experiencing increased production volumes. The 8-nozzle mounthead places everything from ultra-small chips to common mid-sized ICs at high speed, thereby significantly increasing your overall machine throughput.

A solution for every production volume

Since production needs vary drastically, the HYDRA *Speedmount* comes in different versions. Each version is specially designed for different capacity requirements, from the basic HYDRA to the new HYDRA Extended Range (ER).

Broad component range

The mounthead is designed for high-precision mounting and can pick up to eight identical or varied components simultaneously or sequentially. The basic HYDRA mounts all components from 0402 chips to SO14s. The new HYDRA ER handles a broader component range: from 0201s to mid-size ICs, such as QFPs and BGAs measuring 15 x 15 mm.

The built-in Automatic Tool Exchanger (ATE) enables the whole range of components to be picked without manual handling of the tools. The result is faster production and complete flexibility for the operator.

On-the-fly vision system

Touchless component recognition and centering is performed by an on-the-fly vision system. Before mounting, each component is simultaneously inspected and dimensionally verified.

In its basic configuration, the HYDRA comes with a standard HYDRA Camera (HC). But the HYDRA ER utilizes

the Linescan Vision System (LVS), which processes high-resolution images of very complex components, without loss of mounting speed. Combine two Linescan cameras and you can achieve even greater throughput.

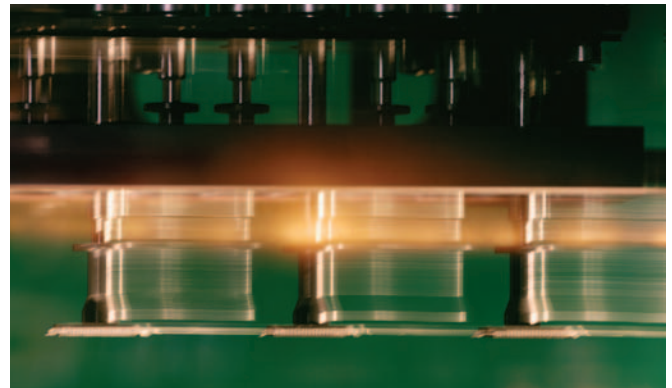
Smart software functions

The optimizer in the machine software, TPSSys, ensures that the HYDRA always chooses the quickest possible route when picking and placing components. It automatically takes the current machine configuration into consideration, such as feeder and tool setup. If the configuration changes during assembly, the software re-optimizes while the machine continues mounting.

Even when running the HYDRA at its highest speed when picking and placing components, the Intelligent Surface Impact Control (ISIC) controls the deceleration of the tools. This ensures that sensitive components are handled delicately, regardless of uneven board height.

Upgradeable

MYDATA machines are designed to grow with you, no matter what new production demands you may face. That's why we offer several different HYDRA upgrades for machines that are already in production.



| | HYDRA <i>Speedmount</i> | HYDRA <i>Speedmount</i> ER |
|--------------------|---|---|
| Mounthead type | 8-nozzle in-line | 8-nozzle in-line, extended range |
| Vision system | HYDRA Camera (HC) | Linescan Vision System, LVS or Twin Linescan Vision System, T-LVS |
| Tool exchange | Automatic, optimized | Automatic, optimized |
| Tools | Spring-suspended, color-coded | Spring-suspended, color-coded |
| Rated speed* | 14,000 or 21,000 CPH | 21,000 CPH |
| Component range | Chip, SOIC, QFP, BGA | Chip, SOIC, QFP, BGA |
| Min component size | 1.0 x 0.5 mm (0.04 x 0.02") (0402) | 0.6 x 0.3 mm (0.02 x 0.01") (0201) |
| Max component size | 6.35 x 8.35 x 5.60 mm (0.25 x 0.34 x 0.22") (SO14) | 15.0 x 15.0 x 5.6 mm (0.59 x 0.59 x 0.22") (SO24) |
| Compatible feeders | ALM, AM, TM, TMFlex, VMF | ALM, AM, TM, TMFlex, VMF |

* Dependent on application