



naturally adaptive.



# SMART-SIZED HIGH SPEED DISPENSER

Introducing - The Spider - PCB design freedom. State-of-the-art technology, easily integrated in any line.



**CELL SOLUTION** 

# dispense technology.

- Up to 2 valves simultaneously
- 5 different valves, large application range

## productivity

- Valve up to 780'000 System Ø 310'000 dots/h
- Up to 2'000'000 dots/h line mode (Piezo Jet)

### small footprint.

- Requires only 1 m<sup>2</sup> of production floor
- Machine fits through 90 cm wide door

#### mineral cast

- No vibration, symmetrical mineral casting
- No warpage, no thermal drift

# laser height mapping

- Mapping of heights using laser technology
- Compensation of substrate warp / 3D contour

#### linear motors

- Fast, reliable double drive linear motors
- No maintenance, longest lifetime

naturally adaptive.



## jet-on-the-fly

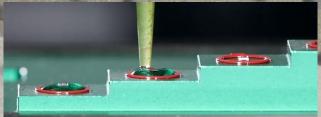
High-Speed Solder Paste Jetting at 310'000 dph system average, ~480'000 dph on BGA patterns. Customizable for special applications.

Jet Dispensing in cavities and variable Z-level.

# INTEGRATE INTO HIGH SPEED LINES AND HIGHLY COMPLEX DISPENSE APPLICATIONS



Versatile range of dispensing applications such as Solder Paste and SMT Glue, LED Encapsulation, Silver Epoxy, Dam and Fill, Underfill, Cavity Fill, 2.5D Dispensing via laser height mapping & more



Full operator support - Automated error analysis & KPI. Training, support and troubleshooting via advanced remote access. Investment protection; all options and heads retrofittable.



Two processes at the same time. Plug and Play for valve change. Piezo Jet Valve - super high speed for low viscosity. Shockwave Jet, Volume Displacement, Time/Pressure, and Archimedean Screw Valve.





**MULTITALENT SOFTWARE AT YOUR FINGERTIPS** State of the art, full graphics, 21.5" 16:9 touch screen, Windows - 64 bit, fingertip operation, real time visualization zoom at camera windows, all-in-one job planning, universal CAD conversion, setup optimization, easy definition of pattern and guided process support

# optional.

Valves & Pumps

Media Heating
Level Detection

Process Control









Needle and jet heating system

Automatic syringe level detection

Process control adjustment & stabilization

Integrated Inspection 2D SPI & AOI defect detection for dispensed material

Vacuum Cleaning Station, High Precision Scale, Clean Room, Heating/Vacuum Table Full process control meeting automotive standards and more







# naturally adaptive.

|          |   | spider.  |
|----------|---|--|
| Process  | Optimum jetting /<br>dispensing speed<br>(dots/h) | Shockwave Jet (Solder Paste): 780'000 BGA: 480'000 PCB Ø 310'000 Piezo Jet: 2'000'000 BGA Jet-on-the-Fly: 780'000 Stop & Jet: 177'000 Time/Pressure: 38'000 Archimedean Screw: 30'000 Volume: 26'000 |
|          | Dispensing mode                                   | Dot, line, curve, interpolated 3D contour  |
| Accuracy | Placement XY dots                                 | 40 μm (3σ)   |
|          | Positioning Z axis                                | 20 μm (3σ)   |
| PCB      | PCB dimensions                                    | 50 x 50 mm up to 406 x 305 mm (2 x 2" up to 16 x 12")  |



Wildlife consistently shows us with breathtaking flexibility how nature can adapt itself to the many different demands of its environment; that is what inspires us! Essemtec AG is a company with its development and production site in Switzerland. The product portfolio comprises of production equipment for electronic assembly and more. Our high-tech solutions can be adjusted quickly and easily to meet wide ranging requirements; we are therefore able to respond to all manner of customer requests. That's why "naturally adaptive" is our motto across all ranges.

#### OSDEMS Industrial

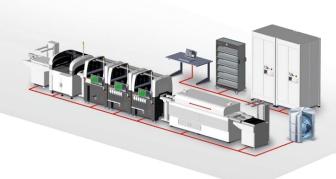
880 x 1090 mm (34.7 x 43")

Blvd. Puerta de Hierro 5153

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Machine footprint

