

Versatility without limit:  
**THE COMPONENT MATRIX**

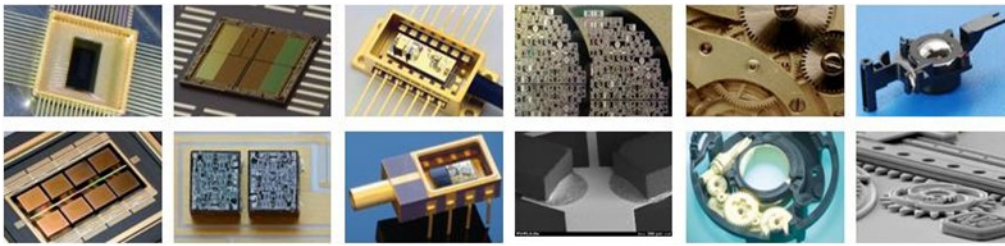


**Your partner for innovative processes and production systems.**

**INFOTECH**  
*automation*

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## Infotech Application range


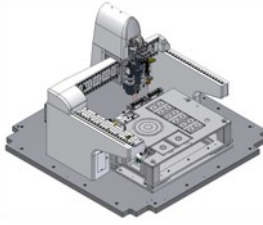
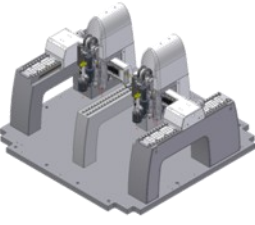
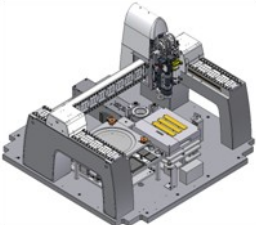


- Electronics
- Semiconductor
- Photonics
- Micromechanics
- Biotechnology
- Your application area

## Infotech Component matrix

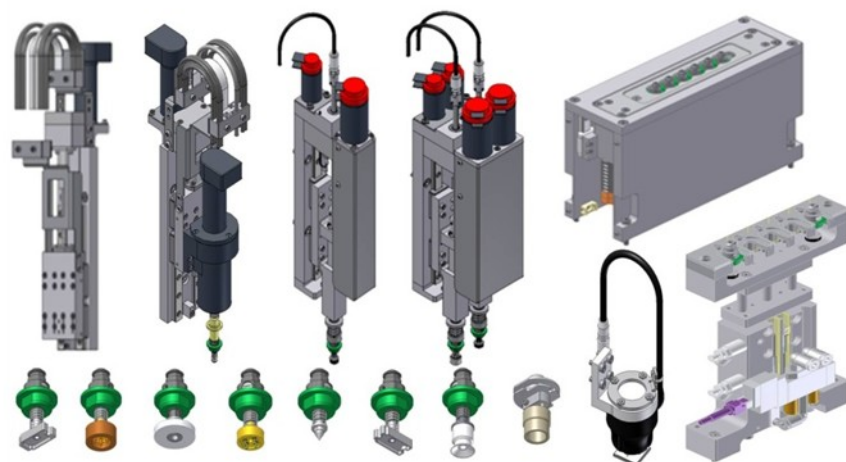
Infotech designs, produces and delivers highest accuracy positioning systems for the automatic execution of precision processes with the comprehensive component matrix: **PLATFORMS** - **ASSEMBLY** - **DISPENSE** - **FEEDER**. Processes which have been developed on IP-Desktop systems, can be transferred to the production line without modifications.

### Component matrix **PLATFORMS**

	IP - 500 Desktop	IP - 500 Cell	IP - 510 Cell	IP - 520 Cell
				
Travel range X	400mm	400mm	2 x 144mm	270, 400, 540mm
Travel range Y	400mm	400mm	400mm	400mm
Axes resolution X/Y	0.0002mm (0.2µm)	0.0002mm (0.2µm)	0.0002mm (0.2µm)	0.0002mm (0.2µm)
Repeatability	+/-0.004mm @ 3S	+/-0.004mm @ 3S	+/-0.004mm @ 3S	+/-0.004mm @ 3S
Process accuracy *	+/-0.010mm @ 3S	+/-0.010mm @ 3S	+/-0.010mm @ 3S	+/-0.009mm @ 3S
Cycle time- „Pick & Place“	4.0s	1.4s	0.6s (2x1.2s)	1.1s

\* Accuracy values are based on glass flip chip placement tests. Depending on the machine configuration, process accuracy values of < 5µm can be achieved.

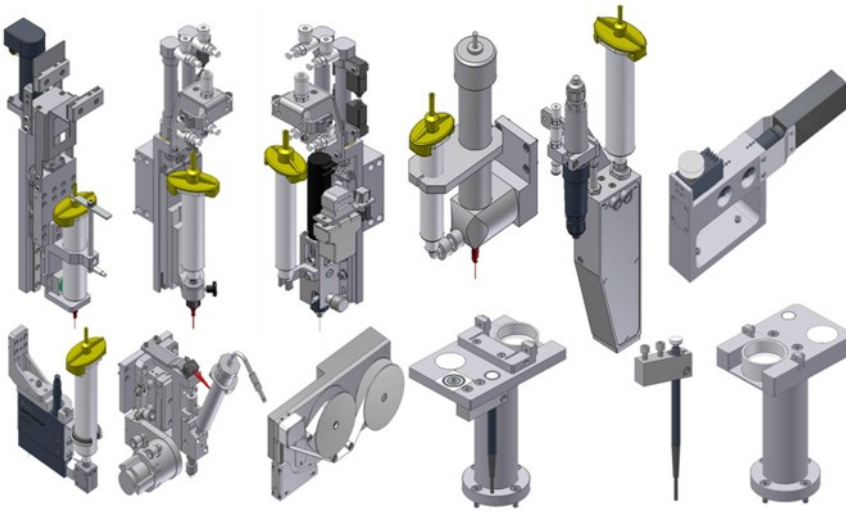
### Component matrix **ASSEMBLY**



- Universal Z-Axis
- Z-Axis extension with Z-Slide
- Precision assembly head
- Fast assembly head
- Fast double assembly head
- Heated bond head
- Nozzle change station
- Standard SMD-nozzle spring loaded
- Die bond universal nozzle
- Special nozzle spring loaded and fix
- Supported force measurement
- Automatic offset calibration
- Offset calibration eccentric

	Precision assembly head		Fast assembly head	
Travel range	Z=68mm (150mm)	Theta >=360°	Z=60mm	Theta >=360°
Axes resolution	Z=0.001mm (1 µm)	T=0.003° (0.00075°)	Z=0.003mm (3µm)	Theta >=0.088°

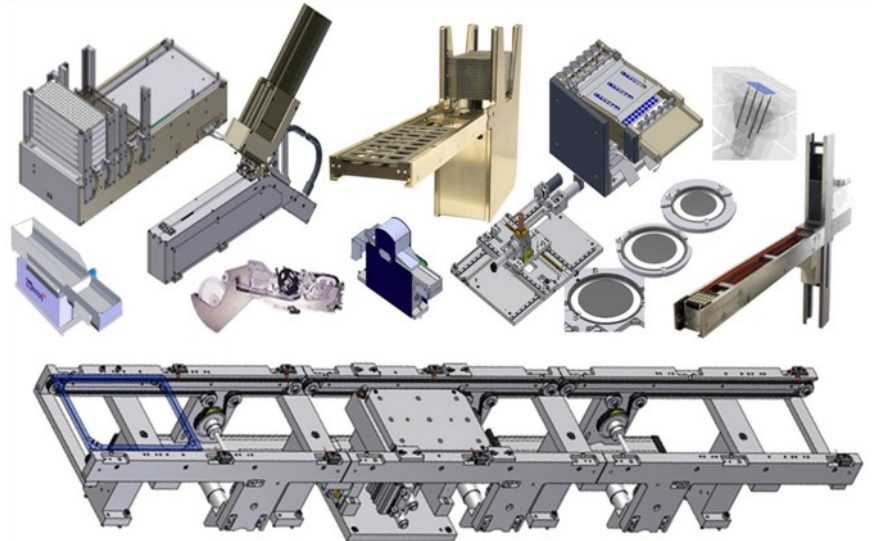
## Component matrix DISPENSE



- Dots, Lines, geometric patterns 2D / 3D
- X-, Y-, Z- and valve synchronized with continuous path control
- Time-Pressure dispense units
- Archimedes screw dispense units
- Precision micro screw dispense units
- Jet dispense units
- Slider- and piston dispense units
- Syringe- respective needle heaters
- Automatic amount (parameter) adjustment
- Automatic Z-needle length calibration and X-, Y-offset calibration
- Purge- and calibration station
- Purge- and calibration feeder
- Needle cleaning stations

## Component matrix FEEDER

- SMD Tape feeder 8, 12, 16, 24, 32, 44, 56 and 72mm
- 3-, 5-, 8-, and 20-slot feeder bank
- Stack stick feeder unit (20 sticks)
- Stack tray feeder unit Jedec, 2x2", 4x4" and optional nonstandard dimensions
- Gel-Pak tray support
- Foil feeder unit
- Vibration feeder unit
- AnyFeed SXM50 and SXM100
- Wafer die/flip chip eject unit for 4", 5", 6" and 8" expansion rings and for standard 8" Disco frames
- Board, work piece carrier and boat (aer) transport systems



## Combined dispense and assembly processes



### Down looking camera unit

- Fiducial mark recognition
- X/Y needle offset calibration
- Dispense amount calibration
- In feeder component inspection
- Assembly- and dispense quality inspection

### Precision assembly head

- Pick and place of components using position- or force processes
- Pin print transfer of conductive adhesive

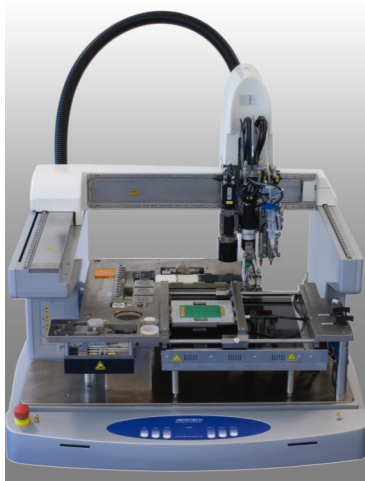
### Height measuring sensor

- Process height calibration (3D)

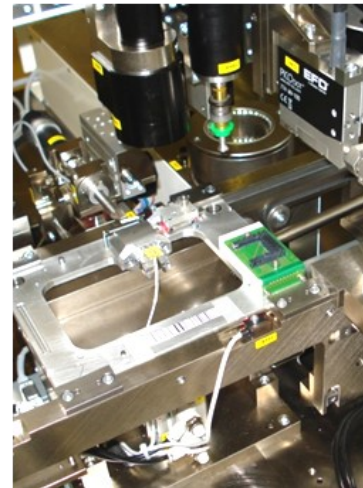
### Precision micro screw dispense unit

- Volumetric dispensing

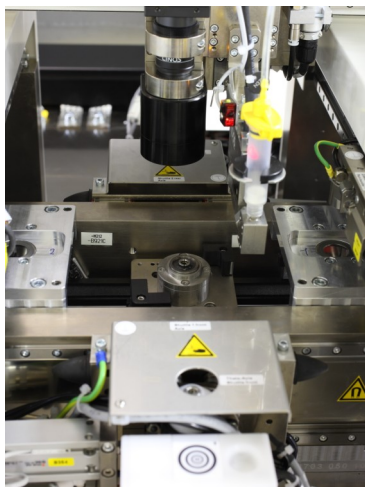
**Application example**



- Desktop factory**
- Time-Pressure dispenser
  - Syringe presence control
  - Needle calibration
  - Height measure sensor
  - SMD-Assembly
  - Pick from wafer, die and flip chip
  - Wafer map import
  - Gel-Pak support
  - Relative assembling
  - Substrate heater
  - Board carrier



- Factory in cell**
- Pin print transfer unit
  - 3D Jet-UV dispenser
  - Time-Pressure dispenser
  - Syringe pressure control
  - Needle calibration
  - Height measure sensor
  - Hot gas cure unit
  - Contact pin test unit
  - Module testing unit
  - DIE-Assembly
  - SMD-Assembly
  - Sealing of housing



- 3D Jet-Dispense process**
- Valve inspection
  - Valve cleaning
  - Syringe presence control
  - Automatic dispense valve calibration
  - 13 Axes synchronized with dispense valve
  - G-code motion
  - Cycle time of 1.2 s
  - One piece flow
  - Component handler
  - Traceability software



- Production line**
- Component mount
  - WPC Transport system
  - ID-Inspection
  - Host communication
  - Component tox process
  - Component test
  - Component calibration
  - Laser writing
  - Plain writing inspection
  - Product unload
  - Traceability software
  - Tool less change over

**AUTOMATION PROCESSES - ASSEMBLY - DISPENSE - BOND - FROM LAB TO PRODUCTION LINES**

**PRECISION OVER ALL**

Precise automation solutions from Infotech:

- Utmost precision
- Guaranteed over time including temperature compensation
- Absolute reliability
- In smallest spaces (minimal foot print)

**RELIABILITY AS THE HIGHEST TARGET**

Visual Machines™ from Infotech

- Application software including motion and vision
- Continuous process parameter control (closed loop)
- Automatic peripheral calibration
- Quantity variance compensation and calibration software

**FLEXIBILITY TO THE LAST DETAIL**

The competent project team from Infotech:

- Guarantees innovative process adaptations
- Combines modules from the component matrix
- Offers lab desktop systems up to production lines
- Implements process solutions efficiently

**WWW.INFOTECH-AUTOMATION.COM**

Infotech is looking forward to your challenges

- Analyze and find solutions to complex requirements
- Efficient, direct and successful customer support and relation
- „Impossible“ is not part of the Infotech vocabulary
- Our motto is „why not?“

**Your partner for innovative processes and production systems.**