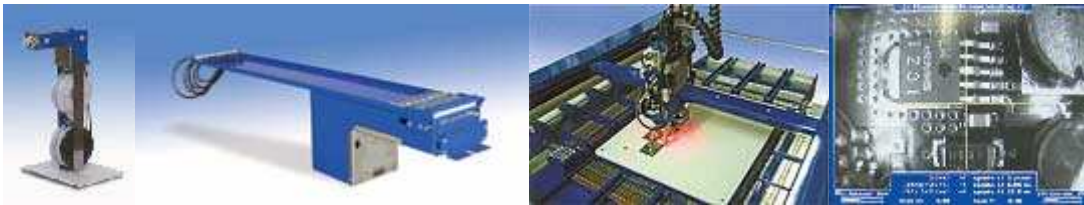


QUADRA Pick & Place



The TWS Automation Quadra is suitable for prototype and/or for small to medium size manufacturing batches, representing the economic option in the TWS Automation Pick & Place range. The Quadra Pick & Place machine is supplied with a dual spindle mechanical centring head where the centring is carried out by means of 4 lightweight jaws and if requested, equipped with a dispenser for adhesives and solder creams. The unit is provided with automatic fiducial recognition and the maximum throughput is 3600 components per hour with an average productivity of around 3000 cph.

The machine accommodates up to 120 feeders in total, in tapes from 8 mm to 44 mm width, 7" or 13" reel diameter and any kind of stick and tray.



Technical specifications

Dimensions	850x1000x1800 (WIDTH X DEPTH X HEIGHT)
Weight	160 Kg
Packaging	900x1100x1500 (WIDTH X DEPTH X HEIGHT); 220 kg
Components size and type	The unit can mount chip components from 0603, Melf, Mini-melf, cylindrical components, Sot transistors, diodes, integrated circuits with 0.8 mm pitch (31.5 mil) up to 35 mm, PLCC and LCCC integrated circuits up to 35 mm, trimmers, inductors, connectors, aluminium electrolytic capacitors up to 10.5 mm high.
Placement area	The placement area and the maximum printed circuit board dimensions are 440 x 360 mm. For larger boards, the placement area can be extended by removing feeder magazines on one or two sides of the unit, making the maximum board size 550 x 420 mm.

Productivity	3600 components per hour. The average productivity is 3000 components per hour.
Placement	The unit is supplied with a dual-spindle mechanical centring head where the centering is obtained by means of 4 jaws. The placement head moves along the X and Y axes. Each head is equipped with a vacuum sensor to detect component pick-up failure and to command a new pick-up cycle. Components bigger than 15 mm are centred off-line by a special mechanism.
Axes movement	Stepper motors driven by a controlled slope, allowing the head motion to accelerate and slow down at the starting and stopping points.
Resolution	0,02 mm on X and Y axes 0,45° on the Theta axis rotation
Accuracy	± 0,10 mm on X and Y axes 0,90° on Theta axis rotation
Noise	The noise coming from the unit is 65 dBA (average value) and 90 dBA (instantaneous peak value), measured at 1 meter from the unit and 1,6 meters from the ground.
Power supply	The unit works with an AC 220Volt ± 10%, 50/60Hz. Consumption is lower than 1 kW. One 8-10 bar air compressed source is required and consumption is about 60 l/air each minute.