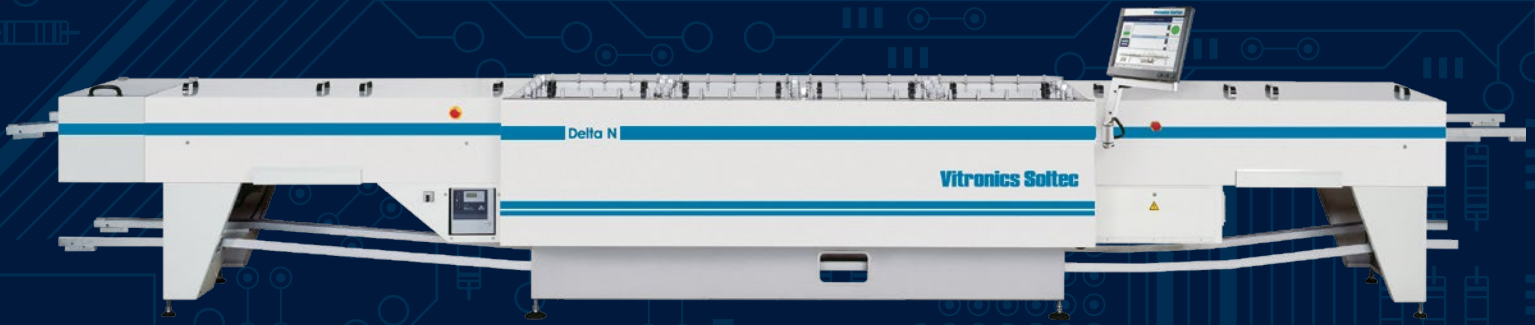




Vitronics Soltec

A WORLD OF SOLDERING SOLUTIONS

Proven Performance



Delta N Inert Wave Soldering

The system with the lowest cost of operation and best insight of your process

Amongst its other advantages, the Delta N line presents a persuasive argument in the form of high throughput rates, reproducible results and the economical use of auxiliary and operating materials. Maintain an overview of your production – in detail and every step of the way.



The Delta N is a closed wave soldering machine i.e. a full tunnel nitrogen wave soldering machine used in medium-sized to large production operations. This inline machine can be integrated into an existing production line or produce independently of other systems. Vitronics Soltec also offers suitable periphery systems. This machine is available in different conveyor widths and in frame or finger conveyor versions.

The flux is applied regularly and evenly by means of an atomiser fluxer. The entire closed system is controlled, flux flow rate and level monitoring are both built into this machine as standard. This allows the Delta N to guarantee process stability, even in a 3-shift production.

Connection Value

Electrical Connection	Pneumatic consumption	Nitrogen connection (N ₂)	Nitrogen / Consumption
230/400V +10% – 15% 50/60 Hz, 3PNE ≤ 32.8 kW	about 0.16 m ³ /h, depending on production	Power: 4 bar constantly	15 – 20 m ³ /h, depending on production

Weights and loading

Machine	Solder filling
about 900 kg without solder filling	390 – 450 kg (Delta N 300/400) depending on the alloy 550 – 650 kg (Delta N 420/500) depending on the alloy



The 1.5-metre-long preheater section (standard) is powerful and responsive. The infrared lamps come equipped with different wavelengths, so, depending on the flux base, the right configuration can be created in consultation with the customer (IR or carbon/hybrid). This machine is fitted as standard with a pyrometer with which the preheating can be automatically regulated in closed loop mode. Overall, an even and reproducible temperature profile presents a convincing argument for every Delta N preheating combination.

Depending on the machine size, the double wave solder pot contains either 450 or 650 kg of solder (SnPb). The machine is standard equipped with a hollow/chip wave, optional one can add 1 or 2 turbulent waves which can be operated individually. This combination leaves almost no wishes unfulfilled and makes it possible to solder all components.



The entire machine (preheater section, solder area and out-feed area) is enclosed in a nitrogen atmosphere. This is monitored in real time by a residual oxygen measuring device and automatically adjusted where required. Adjustment takes place in the PPM range set by the customer in which the processes have been defined. The patented 5-lock (5 flap) system used by the Delta N results in a homogeneous atmosphere throughout the machine and a minimal consumption of nitrogen.

Equipped with a touchscreen and industrial PC, the SIG control system offers a user-friendly interface for operators and service personnel alike. The control system's modular construction permits the implementation of a wide range of options alongside the standard inputs.

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