STARLiNE-DASH® Electroless Nickel Plating Controller

The ultimate in automated sampling, analysis and replenishment
Uyemura, the industry leader in electroless nickel plating and plating control, presents the STARLiNE-DASH 4-NP, the most advanced process control technology for EN plating.

DASH 4-NP builds on the highly successful track record of NP-3 - with important added features that EN platers have designated "most important" for effective, consistent plating performance.

DASH 4-NP samples the electroless nickel plating solution, analyzes nickel and pH values, and replenishes automatically. As a result, baths can be maintained continuously at 2-4% of optimum, nickel can be controlled within +/-0.05 g/L, and overall plating rate can usually be increased.

It also offers these 12 important advantages:

- A foundation in the field-proven analysis protocols of the DASH NP-3
- Automatic pH and nickel calibration
- Pre-programming with parameters applicable to specific EN chemistry; simply select the plating product from the menu
- Data collection tabulates in situ without downloading with simple PC connection
- Controls up to two independent plating baths
- Intuitive operation via password-protected HMI
- Immediately displays real time analysis; will also display remotely
- Archives analysis and error records to removable USB memory
- Connects to an external monitoring system for real time bath condition monitoring
- Exceptionally "green"; plating rinse water cools sampling solutions, for example, precluding the need for additional cooling water.
  And because it reduces the amount of chemistry used, and the parts rejected, 4-NP contributes to pollution prevention.
- Slide-accessible reservoir column
- Precise tracking of chemical use, bath age, and replenisher inventory
STARLine-DASH 4-NP operators review system history, establish sampling schedules, calibrate bath sensors, and specify tolerances. The system does the rest.

As a result:

- Deposition rates are exceptionally uniform.
- The plating line can perform at maximum productivity, even when loading is highest.
- Management has a proven way to control costs and prevent rejects.

Uyemura’s STARLine-DASH 4-NP Plating Controller gives EN platers precise bath control, and a significant competitive advantage. Learn more today.
**Nimoden NPR-4 Electroless Nickel** for electronic and PCB applications with fine line circuitry. Acidic bath formulation allows the deposition of electroless nickel without bridging. Process operates at lower temperatures for improved resist tolerance.

**Nimoden NPR-8 EN-phosphorus** is mildly acidic, was developed for EN / gold plating to selective PWBs with dry film masking. Catalyst, electroless nickel, and immersion gold components are optimized for highest productivity and bath life.

**Epithas NPR-18** mildly acidic electroless nickel plating bath for fine line circuitry in silicon wafer plating. Stable bath allows bridge-free electroless nickel deposit. Nickel layer adheres to the IC and creates a diffusion barrier.

**NBB Electroless Nickel** is a mid-phos electroless nickel process in the range of 6 to 8%. Deposits are bright and robust, and free of lead and cadmium.

**ANP Electroless Nickel** provides excellent adhesion through at least six MTOs. The process does not employ a strike and adds no additional steps compared to normal aluminum preparation double zincating.

**KTY Electroless Nickel** is bright, stable, and heavy metal-free.