STARLiNE-DASH®
4-NP Plating Control

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

DASH 4-NP builds on the highly successful track record of NP-3 - with important new features that EN platers have rated as "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.

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It also offers these 10 important advantages:

- A foundation in the field-proven analysis protocols of the DASH NP3
- Pre-programming with parameters applicable to specific EN chemistry; simply select the plating product name from the menu
- Controls up to two independent plating baths
- Is operated easily by a color display HMI, which can be password-protected
- Immediately displays real time analysis
- Archives analysis and error records so bath history can be evaluated as charts or numerical values
- Can be connected to an external monitoring system for bath condition monitoring in real time
- Is exceptionally "green"; plating rinse water is used to cool sampling solutions, for example, eliminating the need for additional cooling water.

And because it will reduce the amount of chemistry used, and the parts rejected, it is also a solid strategy for pollution prevention.

- A side-accessible reservoir column
- Precise tracking of chemical use, bath age, and replenisher inventory

UL listing is pending
Uyemura’s Starline-DASH 4-NP Automatic Solution Controller offers EN platers precise bath control. It is also a tool for gaining meaningful competitive advantage in what is, by any measure, an ultra-competitive environment. Learn more today.

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

Display showing analysis
Starline-DASH 4-NP Provides Ultimate Control for Uyemura EN Chemistries, including:

**Nimuden NPR-4 Electroless Nickel** was developed for electronic and PCB applications with fine line circuitry. Acidic bath formulation allows the deposition of electroless nickel without bridging. This process operates at lower temperatures, for improved resist tolerance.

**Nimuden 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 have been optimized for greatest productivity and bath life.

**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.

**KTY Electroless Nickel** is the world’s first “heavy metal–free” EN process.

**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.

**ANP1012 Electroless Nickel** plates nickel phosphorus alloys in the range of 10-12 weight percent phosphorus. It’s ideal for applications requiring a high degree of corrosion resistance, a non-magnetic nickel finish, excellent wear resistance and a low contact friction finish.