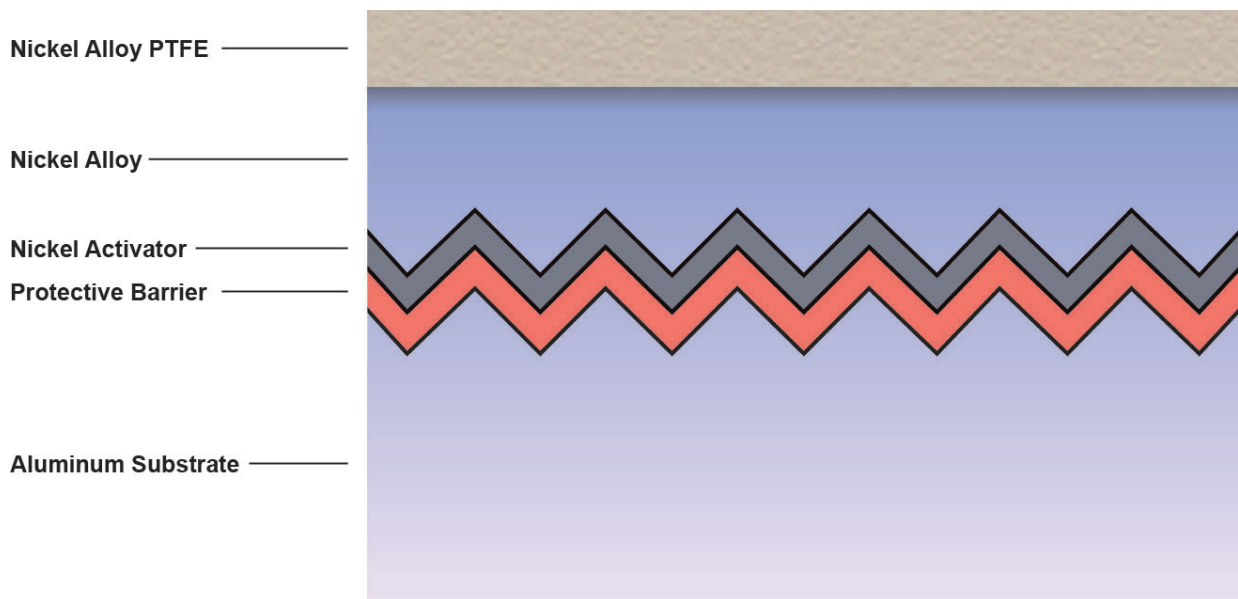


## CNI, Chemically Nickel Impregnated Actuators



### Design and approval

CNI actuators are designed to provide the best corrosion resistance possible. This highly competitive stainless steel alternative is an ideal choice for tough environments.

From the beginning it was specifically developed for the Food, Beverage and Pharmaceutical industries.

CNI Actuators was originally introduced to the market in 1993.

### Material and treatment

The high density Nickel Alloy that is used and the added PTFE gives the actuators more resistance to chemical attacks and improves the lifespan. The production process makes it possible to impregnate also all internal surfaces of the CNI actuators.

## CNI, Chemically Nickel Impregnated Actuators

### Technical information

#### What is CNI?

CNI is an Autocatalytic nickel bath process that does not require rectifiers, electrical currents or anodes as in electroplating.

#### What is "Autocatalytic" process?

In the deposition process once a primary layer of Nickel has formed on the substrate, that layer and each subsequent layer becomes the catalyst that causes the above reaction to continue until the "uniform" is achieved.

#### What is a Nickel Bath?

Nickel is a dense alloy of both nickel and phosphorus. The amount of phosphorus varies depending upon the formulation of the bath solution. The deposition process is autocatalytic.

#### What is so Unique in the CNI Actuator?

The Ni bath makes it possible to impregnate all internal surfaces of our "actuator", controlled to one (1) micron. The uniformity of deposit thickness is extremely difficult, if not impossible to achieve by any other method.

### Criteria used to develop the CNI process

- Corrosion resistance
- Reduced Friction – Non Stick Action
- Hardness
- Reduced Wear – Longer Life
- Uniformity of deposit regardless of geometrics
- Non-magnetic properties of Nickel alloy
- Non sparking properties
- Nickel density surface averages Ra 5 or less

