



## PLAFORIZATION™ Dip and Flowcoat

F O R M E T A L S U R F A C E S

### PAI-KOR ONE-STEP PRETREATMENT

The responsible approach to metal pretreatment.

# Plaforization . . .

## As easy as it gets!

### ◆ One treatment stage

**Only one tank:** Plaforization™ cleans, phosphatizes and seals in a single step. There is no rinsing, so the part is ready for painting or storage as soon as it is dry.

**Clean and phosphate at the same time:** The parts are cleaned by dipping or flowcoating for one minute. During treatment, the metal surface is converted and both a metal phosphate and a continuous polymer sealant are simultaneously applied to the surface.

**Treat various metals at the same time:** Steel, galvanized steel, aluminum, cast iron; in fact, most metals, except alloys containing silicon.

### ◆ Operates at room temperature

Stop heating your bath and eliminate your natural gas bill. Because Plaforization™ works at room temperature, you also don't waste time waiting for warm-up of the solution. Plaforization™ is ideally suited for both batch and continuous production.

### ◆ Creates no effluent, no solid waste

Since no water is used, there is no water disposal or treatment, and therefore no disposal permits are required. Plaforization™ also creates no sludge, so you have no solid waste disposal to worry about either.

# PLAFOR

### ◆ Flash rust protection

The polymer that is part of the phosphate coating serves two purposes. First, it absorbs oils and greases removed from the part and by a chemical change these become part of the polymer. When the polymer film is formed it actually seals the phosphate so that the pretreated parts will resist corrosion for weeks without painting if stored indoors.

### ◆ Never change the treating solution

Never change the treating solution, because the polymer chemically captures the oil and the continuous filter system removes dirt. All you need to do is top off the liquid as it is consumed.

### ◆ Environmentally and worker friendly

The Plaforization™ solution is environmentally friendly and worker friendly. Due to its extremely low vapor pressure, it is virtually VOC-free.\* Plaforization™ contains no chlorinated fluorinated compounds (CFCs), hazardous air pollutants (HAPs), halogen-containing hydrocarbons (HHCs), aromatics, chrome, or ozone-depleting substances. The vapor decomposes in air to carbon dioxide and water in a few days. \*Except in SCAQMD.

### ◆ Low capital and operating cost

The plant is compact and simple to operate, keeping the capital and operating costs low. An efficient installation will have a payback period of between 1 and 2 years. No daily bath analyses are necessary, just a free analysis every other month by our certified laboratories. Because there is no heating, no rinsing and no effluent, the costs of a Plaforization™ installation are much less than for a conventional multi-tank heated system. Because this process requires only a single stage, the amount of space required is also less. There is no messy tank cleaning. And you need no chemical knowledge to operate with Plaforization™.

### ◆ Operation is simple

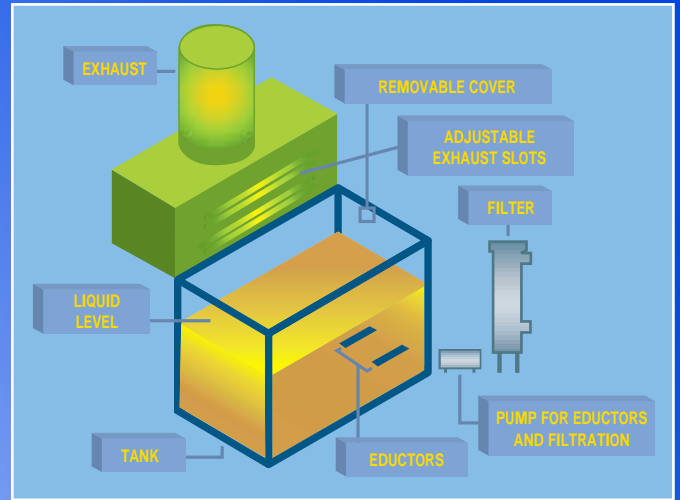
Treated parts are first wetted by the Plaforization™ solution for 60 seconds, then dried, and are ready to paint. One gallon treats 1,200 to 1,600 sq. ft.

# I N S T A L L A T I O N S

Compared with a conventional multi-stage system, a PlafORIZATION™ installation is simple. Only one tank is needed and the process works at ambient temperature. In a dip system, tank size is determined by the largest part to be treated and, in the case of a plant fed by a continuous overhead conveyor, by the speed of the conveyor. In a flowcoat system, tank size is determined by line speed, number of nozzles and amount of metal to be treated.

## Manual and Semi-automatic Installations

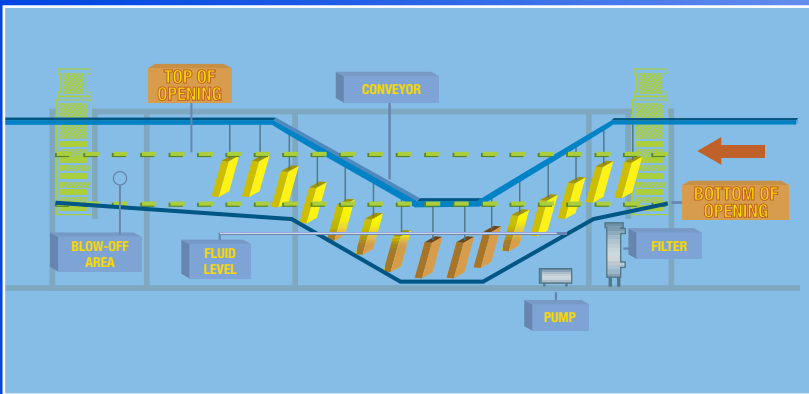
Because there is no heating, just remove the tank cover, start the pump-filter and the plant is ready for operation. An exhaust panel at the back of the tank removes any solvent vapors from the plant.



# I Z A T I O N

## PAI-KOR ONE-STEP PRETREATMENT the responsible approach to metal pretreatment

### Continuous Automatic Plants

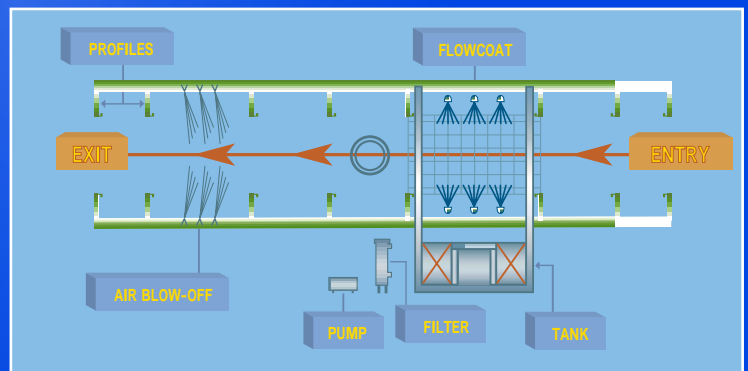


### For a dip process

Parts are hung from the overhead conveyor and proceed through the PlafORIZATION™ tank, through a drainage and blow-off zone, through the drying oven and then directly into the painting booth and through the curing oven.

### For a flowcoat process

Parts are hung from the overhead conveyor, proceed through the spray chamber, then to a drainage and blow-off zone and into a warm drying oven, then directly to painting and the curing oven.



## PRODUCT RANGE

### **Plaforization™ is offered in a range of products designed to meet various industrial needs.**

For example, some users have intermittent or flexible production and can air-dry their parts, while others will want to oven-dry them. Some users may want to recover and recycle the fluids, generally for regulatory reasons or because of high production levels. Products are available with a flashpoint above 200 degrees F. And there is also a special line for those desiring high salt spray resistance of pretreated but unpainted parts.

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***"I couldn't be in the powder coating business without Plaforization™."***

JAY JOHNSTON, President  
Johnston Metal Works, Inc.  
Cheboygan, MI

***"Best of all, we have seen a great reduction in...part rejections due to adhesion problems..., as well as major improvements in the quality of our powder coat paint finishes.."***

JIM GALVIN, Owner  
Total Automation, Inc.  
Columbia Station, OH

***"We thought this would be a good return on our investment, with the quality of cleaning as well as the environmental benefits. No water is needed. No heat is needed. There's no waste. That's the key."***

CONNIE DAVIDSON, General Manager  
North Country Wind Bells  
Round Pond, ME

***"Ecophor™ A447 has performed well, meeting or exceeding our required performance specifications."***

MATT BOTTER, Senior Project Engineer  
General Dynamics Ordnance and Tactical Systems  
Garland, TX

***"The village where our business is located currently has no sanitary sewer, so disposal of a cleaning material created a real problem for us. [Plaforization™] has enabled us to eliminate all of the disposal headache and expense. We started using Plaforization™ in June 2003, and it has performed very well for us."***

DALE VAN DYK, President  
Smart Manufacturing Group  
Schoolcraft, MI

For more information contact:

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