

Editor: Krishnakant Parab
 krishna@progressivesurfacesystems.com
 Sub Editor: Sanjana Singh
 sourcing@progressivesurfacesystems.com

INSIDER



TOP NEWS

Progressive Surface Systems participated in the Metal Finishing Exhibition & Conference hosted by MFAI on 14-16 February 2024. Attendees learned about innovative surface finishing technology, UV nanotechnology, and eco-friendly processes.



OUR GOALS

The progressive PSSPL product range in India has achieved over 500 customers and 67 distributors, Moving forward, here are some potential goals, to further expand, our company is identifying new regions, establishing a presence, strengthen customer relationships, and increasing customer satisfaction through surveys, feedback mechanisms, and personalized communications.



CASE STUDY-(GODREJ & BOYCE CO LTD)

LECTRASEAL based coating process containing DFL (Dry Film Lubrication) technology for friction control. Provides increased slip for ease of action of moving parts. Available in customised colour and gloss effects. The progressive surface systems are Sliding bolt mechanism for security box.

Requirements:

Brass appearance, Strength of steel, Corrosion resistance of brass, Ease of movement without oil or grease.

Solution: LECTRADYNE BRASS onto zinc plated steel



PROGRESSIVE
PSSPL SURFACE SYSTEMS

NEW LAUNCH

Auridior

PLATING PROCESS FOR GOLD



AURIPUS 101

HIGH-SPEED, MILDLY ACIDIC ELECTROPLATING

High Purity: The gold deposit achieved through this formulation is exceptionally pure, with a composition of 99.5%. This high purity is crucial.

Hardness Range: The hardness of the gold deposit falls within the range of 130 to 200 Knoop, indicating that the plated surface is durable and resistant to wear and tear.

Impurity Prevention: The formulation includes measures to prevent metallic impurities. Proper rinsing of parts before plating helps eliminate any contaminants that could affect the quality of the gold deposit.

morf

MASTERS OF RICH FINISHES



Introducing
Direct to metal

PATINA'S

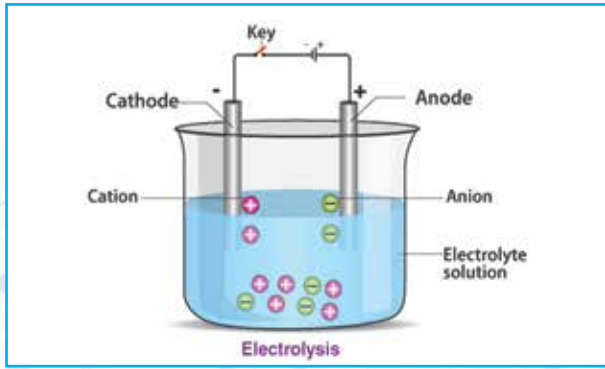
COMBINING THE WORLD OF
ART, SCIENCE AND ENGINEERING

Introducing a range of direct to metal patinas for brass, bronze, copper, mild steel, stainless steel, and galvanised steel at room temperature .

Most metal combined with chemical in air creates a metallic compound that changes the surface colour of the metal giving a black, bronze, rust, tarnish green & blue effects

Today with our Patina chemical artisans have much faster and more efficient method for producing a wide range of colours and effects direct on metals.

Most common process for patina is by immersion or spraying ,brushing or dabbing thus forming oxidation on the metal which produces beautiful artique and vintage effects .



BASIC'S OF ELECTROPLATING

(Q)01. What is Electroplating ?

> Electroplating is the process of depositing an adherent metallic coating upon a negatively-charged electrode by the passage of an electric current.

(Q)02. What Is The Purpose Of Electroplating?

> The purpose of electroplating is to obtain a metallic coating having different properties or dimensions than those of the basis metal. For example, a harder, brighter, or more corrosion resistant metallic coating may be deposited over the basis metal. Also, a mismachined part may be salvaged by electroplating on undersized areas.

(Q)03. What are the essential requirements for electroplating?

> The essential requirements for electroplating are: A source of direct current, a plating solution, a source of metal ions, and a suitably prepared object to be plated.

(Q)04. What is direct current ?

> A direct current is one in which the electrons continue to flow in the same direction between positive and negative poles.

(Q)05. How is direct current produced ?

> A direct current may be produced by conversion of chemical energy through a battery, by conversion of mechanical energy through a generator, or by conversion of alternating current through a rectifier.

(Q)06. What sources of direct current are most commonly used in electroplating?

> The sources of direct current most commonly used in electroplating are direct current generators and various types of rectifiers.

(Q)07. Why couldn't ordinary alternating current be used for electroplating?

> Ordinary alternating current could not be used for electroplating because the metal would be depleted as fast as it was being plated and no deposit would be left on the work.

(Q)08. Are special type of alternating current used in electroplating?

> Yes. Special types of alternating current are used in electroplating to achieve desirable effects such as improved anode corrosion, increased deposit brightness, improved metal distribution in recessed areas, or lower internal stress in the deposits. Special types of cleaning, pickling, and activating solutions also employ alternating current.

(Q)09. What is periodic reverse-current electroplating (P-R Plating)?

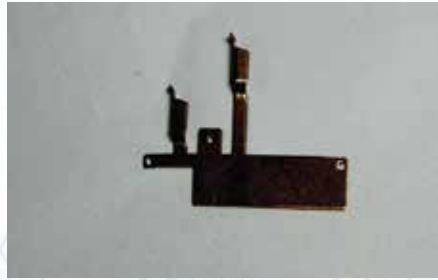
> Periodic reverse-current electroplating (P-R plating) is a process employing a modified alternating current. The plating current is reversed for 10 to 50 percent of the time used for direct current plating. P-R plating is commonly used in cyanide copper solutions to obtain levelling of rough surfaces and improved metal distribution in recessed areas.

(Q)10. Can Alternating and direct current be used together in electroplating?

> Yes an alternating current may be superimposed over the direct current used together in electroplating. In this way the internal stress in nickel deposits may be reduced to a fraction of its original value also certain activating processes employed this method for removing passive film from metal's prior to electroplating.

MD'S

CORNER



The creative design "SPLIT THE LOAD" effectively solved the problem by decreasing rejections daily, leading to increased production output.

SUPPLIED AUTOLINE BARREL
(SCHNEIDER ELECTRIC INDIA PVT.LTD.)

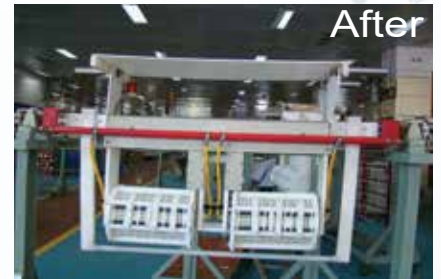
The Six Sigma Review accepted an average defect rate of 22.79, indicating poor performance. After 65 days of discussions, it was determined that the existing barrel body was incompatible with delicate components.



NEED :
Component getting distorted during plating operation, leading to mismatch in breaker and cradle assembly

POA: PLAN OF ACTION:

Psspl provided a customized barrel for existing autoline, offering a free 15-day trial, resulting in a win-win situation and increased responsibility with a large order.



NEW TEST EQUIPMENT



ATOMIC ABSORPTION SPECTROMETER



UV SPECTROMETER

We do all the hard work so you don't have to, our range of services and products means we can find the right combination to suit your needs, just let us know your requirements and we'll do the rest.

PROGRESSIVE SURFACE SYSTEMS PVT.LTD.

T: +91-22-62797700/01/02/03 upto 99

HEAD OFFICE: 3-B, Udyog Nagar, Swami Vivekanand Road, Goregaon (W), Mumbai – 400 062, India

E: sourcing@progressivesurfacesystems.com

PRODUCTION SITE: 66/ 67-A/ 68, Vasai Taluka Co-op. Industrial Estate, Vasai (East), Thane – 401 208, India