

BRASS PLATING

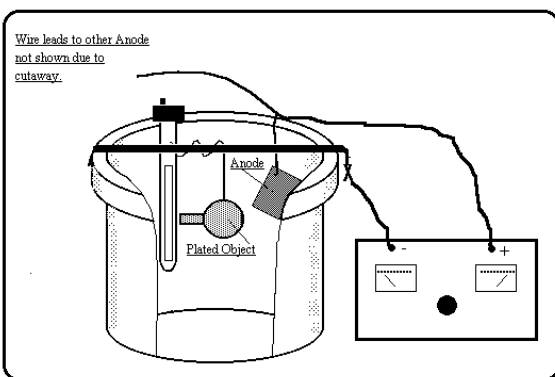
Cyanide Free Brass Plating

Caswell Brass is a unique cyanide-free alkaline brass plating system which plates a true 70/30 yellow-green plate directly onto steel and bright nickel plated surfaces. It contains no strong chelating agents making it very environmentally friendly. It is used as a bright brass flash over nickel-plating process. It is the preferred system for heavy brass plating which will be antiqued (oxidized and relieved). It may also be used for decorative heavy brass if the surface is burnished or buffed and colored with a wheel to remove the slight haze and reveal the true rich brass color for lamp parts, hardware and plumbing fixtures.

Zinc die-castings must receive a strike plate of Pot Metal Treatment. Zinc plated steel must have the zinc removed by soaking in a 5% muriatic acid etch, followed by bead blasting or buffing.

Caswell Brass is supplied as a ready-to-plate solution, which includes all components except **Caswell Brass** brightener. When making 10 gallons of solution 9.5 gallons of **Caswell Brass A** and 0.5 gallons of **Caswell Brass B** are required.

*Note: A higher anode to cathode area may be desirable and can be accomplished by using stainless steel anodes.



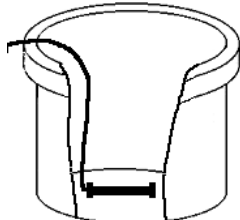
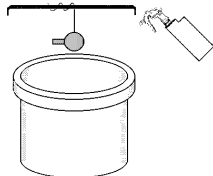
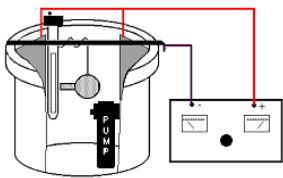
Potassium Hydroxide Control

Potassium hydroxide (KOH) is used in the solution for conductivity, anode corrosion and it aids in the control of the color of the brass deposit. If the pH is too low, copper will deposit in the low current density area. This can be corrected by a simple addition of KOH (the 45% liquid is the most convenient for adjustments) to raise the pH. The pH must be checked frequently and maintained between 13.0 and 13.5 if satisfactory results are to be obtained. It must be checked at least daily and every four (4) hours with very heavy production.

Post Plate

Due to the high pH of the **Caswell Brass** plating solution, thorough rinsing of the alkaline film is necessary before antiquing, buffing, burnishing or lacquering.

Caswell Brass plating solution is alkaline (potassium hydroxide) and can cause severe burns. Do not get in eyes, on skin or clothing. Wear eye protection (glasses, goggles, full face shield), rubber gloves and apron when preparing solutions and making additions to the solutions. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. For eyes, call a physician.

PROCEDURE	SETUP	OPERATING PARAMETERS	EQUIPMENT	SAFETY
1. SURFACE PREPARATION	Buff & Polish for a mirror finish. A more yellow finish is obtained over a copper base, but Brass may be plated directly onto steel			
2. DEGREASING		140- 200°F No agitation 5 mins immersion 12 oz SP Degreaser 3 gal Distilled water	1 x Plastic tank 1 x tank lid (1 x lid ring) 1 x 200f heater 1 x 2lb SP Degreaser	Wear rubber gloves and goggles. Do not ingest 
3. RINSE IN DISTILLED WATER SPRAY				
4. WATER BREAK TEST	 <i>Oil/dirt film makes water bead up part</i>  <i>No oil/dirt film allows water to cover</i>			
5. CALCULATE TOTAL SURFACE AREA AND PLATING TIME				
6. Tank Makeup		80-110°F Agitation (pump) Brass Part A Brass Part B (Do not dilute) 3-12 volts approx 0.01 – 0.30amp per sq” 5-15 mins pH = 13 – 13.5	1 x 110° Heater 1 x plastic tank 1 x tank lid (1 x tank ring) 2 Brass Anodes 2 Anode Bandages 1 x filter/pump 1 x pH meter	Wear rubber gloves and goggles. Do not ingest 
7. Plating Times	15 - 30 minutes			
8. Replace lost water	After plating, top up the tank with DISTILLED water to the original waterline.			
9. Buff & Polish	Buff and polish to enhance the finish, using BLUE buffing compound & Canton Flannel wheel			
10. Wax	If the brass is your finished product, apply a coat of Collinite Metal Wax, or VHT Genuine Clear Lacquer See the section on antiquing solutions for several interesting brass patinas			