ASTOR METAL FINISHES

DESIGNING & FABRICATING FOR ELECTROPLATING

Knowing some of the intricacies of plating will assist with designing and fabrication of those parts which are to be electroplated. This will improve production, affordability, final plating results and achieving design intents.

1. General Shapes
2. Tank Capacities
3. Drainage
4. Racking
5. Substrate
6. External Applications

1. General Shapes

The technical properties of electroplating favour curved shapes & high points – think Corbusier and Breuer chairs. Plating does not go into sharp recesses – chrome is the poorest performer with relation to this. Suggestion; where sharp angles, connections joints and recesses cannot be avoided design cover plates or sleeves to hide these inside corners. Alternately design & fabricate as separate components which are then mechanically fixed after polishing & plating.

2. Consider tank capacities

- Aluminium: 2300L x 950D x 450mmW
- Stainless steel: 2600L x 950D x 450mmW (580mm wide for nickels & chromes)
- Mild Steel: 2750L x 950D x 450mmW (580mm wide for nickels & chromes)

REFER TO WEBSITE FOR FURTHER DETAIL ON EXACT FINISHES AND BASE METALS

3. Drainage

For welded frames made from hollow tube, the component/ frame is fully submerged with electric current through over 20 tanks. As such the solutions need to be able to drain quickly and completely to ensure a good plating result. The general rule is provide open welded tube and as many holes to unseen faces as possible.

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4. Specification for external use

For aluminium & mild steel substrate, specify finish with DUPLEX Nickel (under all other plated finishes) eg DUPLEX APODIS or DUPLEX Light Brown Bronze. We also recommend to specify without lacquer for external applications.

5. Racking

As with powdercoating & anodising, parts to be electroplated require a place to hold them through the production line. With electroplating this is even more important, as the contact points are for racking as well as contact points for electrical current to allow plating to occur. Holes, hook, copper wires, racks are used and when holes are not possible, we have devised unobvious and unseen options. Where possible, design with brackets, holes or folded sections/ returns where we can make unobtrusive holes.

6. Substrate: Which metal substrate is best to use for my application?

Architects & designers do not always specify the substrate in which case we offer advice dependent upon application. Some basic guidelines:

- Aluminium: louvers, frames, panels, signage, castings, laser cut screens, partition systems, furniture, angle, channel, flat bar
- Mild steel: Structural, laser cut screens, furniture frames, components, tube, flat bar,
- Stainless steel: handrails, furniture, shelving, panels, doorware & architectural hardware, castings, panels, folded profiles
- For large surface areas/ panels specified as mirror/ polished finish, we recommend to use BA or Mirror stainless.
- For large surface areas/ panels specified as antique or brushed, we recommend to use 2B or satin stainless
- For exterior application, we recommend to use stainless substrate where possible, second would be brass if feasible.

For further advice & assistance, our project team is always open to reviewing images, photos, sketches to assist in both design & fabrication stages so we can help deliver your aspirations.

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