

XINHENGDA

SCULPTURE ART

Finish Reference Sheet

Mirror, brushed, hammered, corrugated, sequin, titanium gold PVD and weathered patina

A finish is decided during welding and grinding, long before anyone reaches for a polishing mop. This sheet covers how the mirror finish is achieved and lists the other finishes available on the same forms.

- Minimum order: 1 piece across the whole range
- Size: set from your drawing or from the dimensions of the space
- Materials: stainless steel, bronze, weathering steel, iron, fiberglass, resin
- Workshop: 12,000 square metres in Pingshan District, Shenzhen
- Enquiries answered within 24 hours, seven days a week

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A Mirror Surface Hides Nothing

Every other finish is forgiving. Brushed, hammered and coated surfaces all break up light and conceal small imperfections. A mirror finish does the opposite: it magnifies waviness, shows every seam that was not dressed flat, and turns a slightly over-worked panel into a funhouse reflection. That is why the polishing stage is the last place a mirror finish is won.

It Starts With the Sheet

Surface defects in the incoming sheet cannot be polished out later without removing enough material to thin the panel. Sheet is inspected before cutting, and because 304 and 316 look identical on the rack, the grade is confirmed against the order at the same time.

Developed Patterns, Not Guesswork

A compound curved sculpture cut from a guessed flat pattern produces panels that have to be forced together. Forced panels carry stress, and stress shows in the reflection. The form is developed into flat patterns first so that the panels meet without being pulled into place.

Forming in Stages

Panels are formed over shaped bucks in several passes rather than forced into shape in one. Over-worked steel reads as waviness under a mirror finish even when the geometry is correct.

Welding to Control Heat

Heat distortion on a thin polished panel is permanent. TIG welding with matched filler wire, staged around the piece so the heat is spread rather than concentrated, and welded from the inside wherever the geometry allows.

Seam Dressing Is the Real Test

Every seam is ground and levelled until it reads flat under raking light, before any polishing begins. This is the step that separates a piece where the reflection runs unbroken across the joint from one where the weld line is visible from ten metres away. It is also the step most often rushed.

Polishing Through the Grits

Polishing runs through successive grits with the surface checked under raking light between stages. Skipping a grit leaves scratches that are invisible on a dull surface and obvious once the piece is bright, at which point the only remedy is to go back several stages.

Passivation Last

Welding strips the passive chromium oxide layer exactly where corrosion would otherwise start. The piece is cleaned and passivated after all hot work, then crated with foam contact on every finished face.

Finish Options

Mirror polished	Polished through successive grits after every seam is ground flat. Reflects the surroundings. Shows fingerprints.
Brushed matte	Directional grain applied consistently across panels. Hides handling. Usual choice within public reach.
Hammered texture	Hand worked facets that break reflection into small planes.

Corrugated relief	Rolled profile at a set pitch that throws a strong shadow line.
Sequin disc panel	Individually hung discs that move in air currents.
Titanium gold PVD	Titanium deposited in a vacuum chamber over a polished base. Far harder than a gold coloured lacquer.
Baked colour coating	Sprayed and baked over a prepared base, matched to your colour reference with a sample approved first.
Pre weathered patina	Corten brought on in the workshop so the piece ships the colour it will keep.

Frequently Asked

Can a damaged mirror finish be repaired on site

Light scratches can be worked out by a specialist, but it means re-polishing an area and blending it, which is skilled work. Preventing damage with proper crating and careful handling is far cheaper than repairing it.

Is a mirror finish a good idea in a busy public space

It looks spectacular and it shows every fingerprint. Where a piece is within arm's reach of the public all day, a brushed or hammered finish usually serves better and costs no more.