PRECIOUS PLATE

# Process Capability Benchmark

INDUSTRY SOLUTIONS

## Auditing Your Supply Chain Against “Best-in-Class” Manufacturing Standards

EXECUTIVE SUMMARY

# The Cost of Low Process Capability

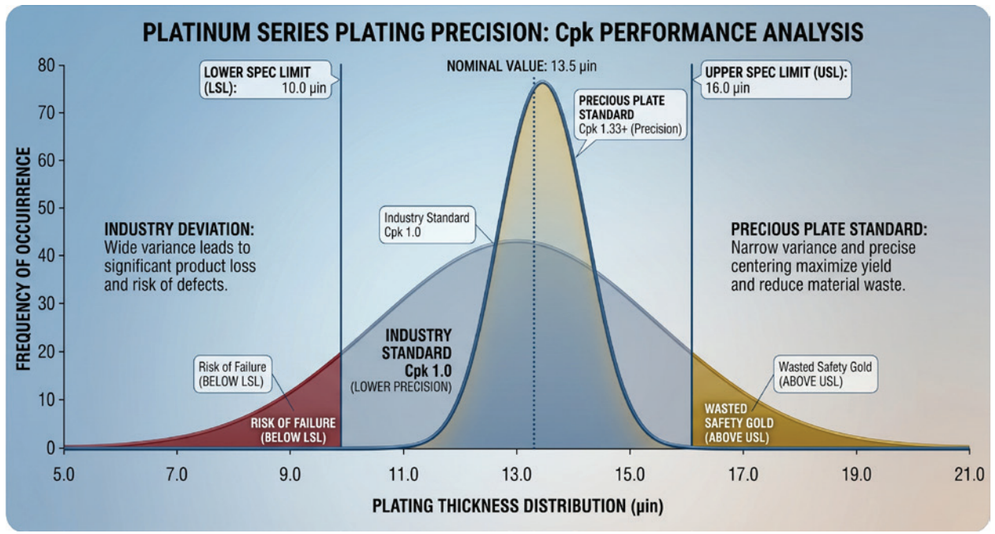
In manufacturing, variability is cost. A vendor with a low Process Capability (Cpk < 1.33) requires you to hold wider tolerances, buy more “safety” gold, and perform more incoming inspections.

This Benchmarking Sheet allows you to score your current Plating/Stamping vendor against the Precious Plate Standard.

## In Precision Manufacturing, Cariability is a Cost

Why a Cpk < 1.33 Requires You to Buy ‘Safety Gold’ and Slow Down Your Suppy Chain

| | |
|---|---|
| THE DEFINITION | Process Capabilitiy Index (Cpk) is the ultimate statistical measure of process relability. It answers: Can you repeat this spec perfectly, every time? |
| THE PROBLEM | The current industy standing (Cpk 1.0) force manufacturerrs to hold wide tolerances to account for erroris. |
| THE FINANCIAL IMPACT | Higher Nominal Targets: You must harget higher thicknesses to ensure minimums are met (wasted metal).<br>Manual Inspections: Reliance on checking for errors rather than preventing them.<br>Risk of Failure: Increased probability of low-specs parts reaching the customer. |




AUDIT CATEGORY A

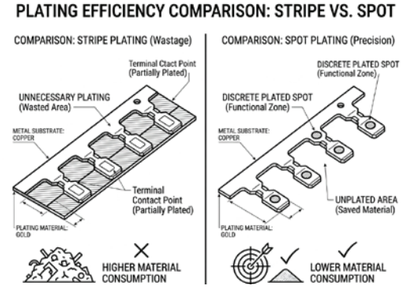
# Are You Paying for Metal You Don’t Need?

Benchmarketing Plating Precision and Material Efficiency

| METRIC | INDUSTRY STANDARD | PRECIOUS PLATE STANDARD |
|---|---|---|
| Thickness Tolerance | s: +/- 5 to 10 uin (Wide Spread) | s: +/- 3 uin (Tight Control) |
| Selectivity Type | Controlled Depth (Stripe) or Overall | Selective Spot (Discrete Zone) |
| Location Tolerance | s: +/- 0.015” (Requires Large Pads | s: +/- 0.008” - 0.010” (Miniaturization) |
| Measurement Frequency | Manual XRF (1/Hour) | Inline Automated XRF (Continuous) |

THE INSIGHT

If your vendor cannot hold the tolerance for Spot Plating, you are paying a 30-50% premium on raw material. Move to a +/- 3uin allows a 15% reduction in nominal targets.




AUDIT CATEGORY B + C

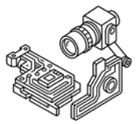
# Do You Inspect Quality In, or Manufacture It In?

Benchmarking Quality Assuranceand Supply Chain Integration.

### CATEGORY B: QUALITY ASSURACE

THE FRICTION (STANDARD)
Human Visual Inspection (AQL Sample)
Manual Chemical Dosing
Paper Charts / Emailed PDFs

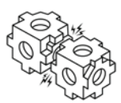
Cpk Target: 1.0 (3 Sigma)



THE FLOW (PRECIOUS PLATE)
100% Inline Machine Vision
Auto-Dosing & RFID Lockout

Cpk Target: 1.33+ (4 Sigma)

### CATEGORY C: SUPPLY CHAIN INTEGRATION



THE FRICTION (STANDARD)
Separate Vendors (Stamper vs. Plater)
Lead Time: 4-6 Weeks
Dispute Resolution: The ‘Blame Game’

THE FLOW (PRECIOUS PLATE)
Integrated Source (Precision Process)
Lead Time: 2-3 Weeks
Dispute Resolution: Single Accountability

CONCLUSION

# Calculating Your Opportunity Gap

How to Measure Your Current Reality Against Best-in-Class Standards

## SCORING YOUR RESULTS

**MOSTLY PRECIOUS PLATE STANDARD**
You are working with a top-tier partner. Keep them.

**MIXED RESULTS**
You have pockets of risk. Audit your highest-volume part immediately.

**MOSTLY INDUSTRY STANDARD**
You are leaving money on the table. Your vendor is costing you ~20% in excess gold and admin time.

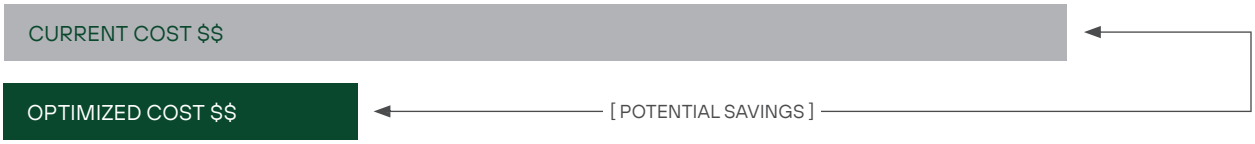
**THE GAP ANALSYS SIMULATION**
Dont guess at the savings. Let us calculate them using your own data.

**THE INPUT**
Send us a Cpk Report or a Quality Data Log from your current vendor for a specific part.

**THE DELIVERABLE**
We will run a side-by-side simulation showing:

1. How much tighter we could hold the distruibution
2. How much gold that tightness would save you annually.

## SAVINGS GRAPH

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