

D Kurd Handpan Root-Mode Prototype

Private research packet. Final handpan tuning is empirical and tuner-led.

This document is a printable companion to the repo packet, not a finished-instrument guarantee.

Root Specifications

Parameter	Value
Scale	D Kurd
Notes	D3 A3 Bb3 C4 D4 E4 F4 G4 A4
Shell	21 in diameter, 9.5 in height, 1.0 mm steel
Gu	3.5 in nominal port
Material path	Nitrided DC04 preferred

Build Sequence

Inspect shells, prepare Gu, build fixture/templates, rough form, tune top shell, rest and drift check, close shells, final tune through Gu, rest and retune.

Validation

Measure cents error for fundamentals, octave partials, and compound fifth partials. Record sustain, cross-talk, Gu response, and post-rest drift.

Risks

Key risks: metal forming hazards, heat-treatment distortion, work-hardening assumptions, tuning repeatability, adhesive/rim effects, and premature public release.

Private Release Gate

Keep private until a human tuner and metal-forming reviewer approve measured prototype data and process assumptions.