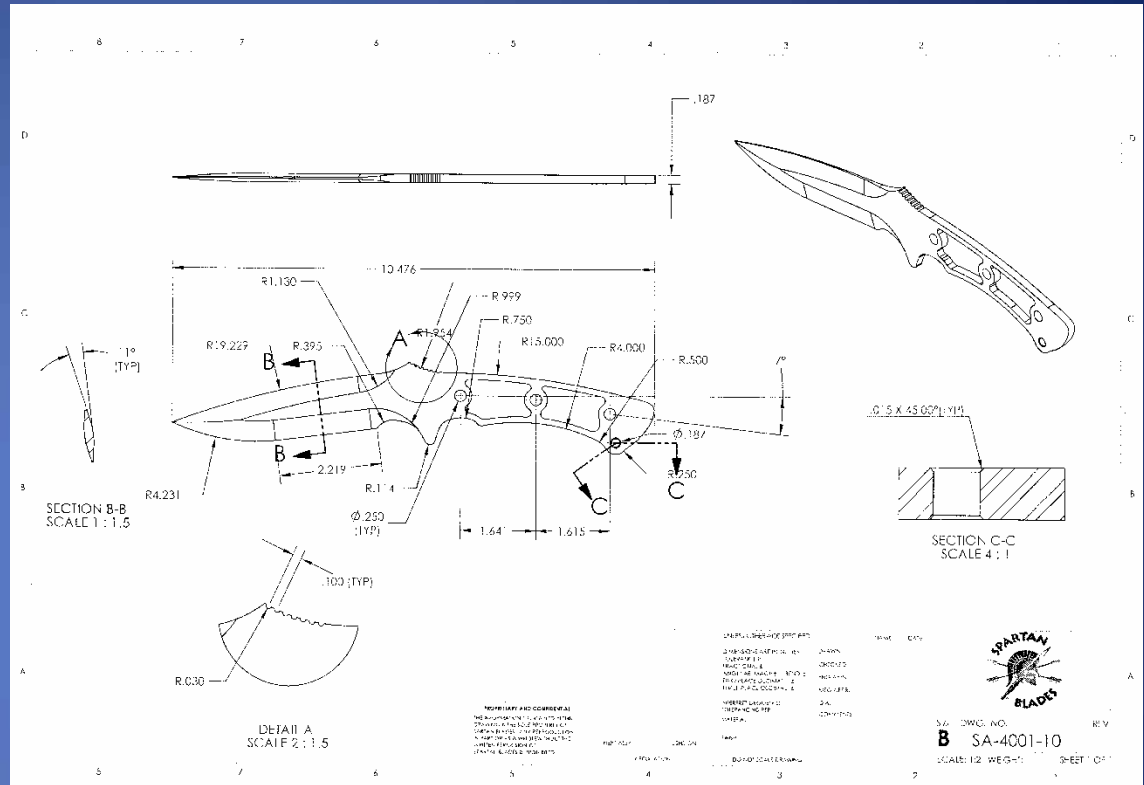
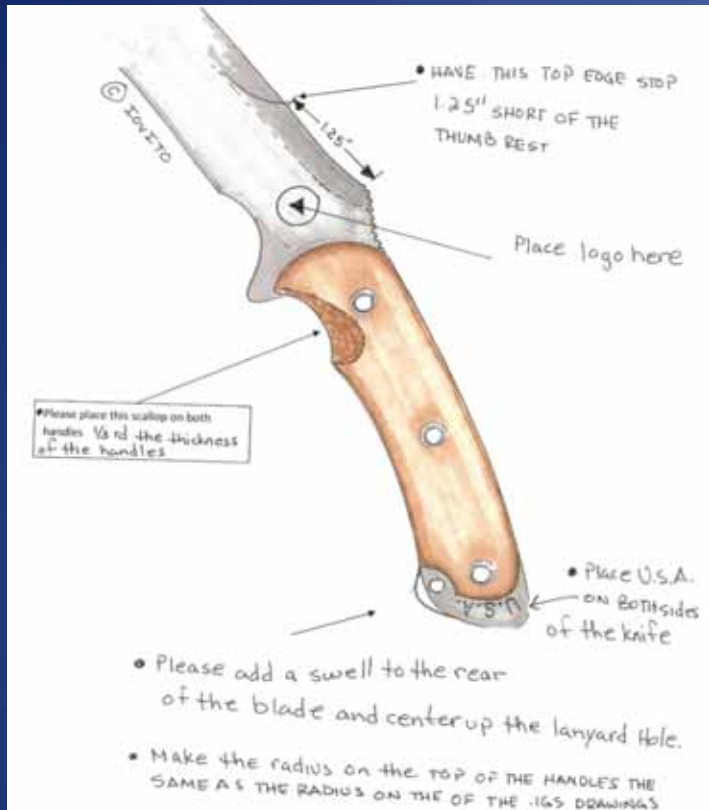




How We Make Our
Knives



Design the Knives

Curtis hand draws our designs and then we use CAD to convert and finalize the design to a machine drawing. We also make prototypes to test actual feel and sizing. Then we design the mill fixturing and develop cutters (as needed) and CAM the tooling paths.



Cutting the blade profiles

We use an abrasive water jet cutter to cut our profiles from a precision ground S30V stainless steel sheet.



www.spartanbladesusa.com



CNC mill in action

We use very sharp coated tooling at highly controlled feed rates to mill just two blades at a time to insure the tolerances are +/- 0.003", not as easy as you would think! We machine the handle scales from micarta on the same machine, very dusty, so no photo's.

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Blasting and Heat Treating

We then blast all the knives with Alumina Oxide abrasive and drive them over to our heat treater. We are lucky to have a fine heat treater that has a vacuum / cryogenic bath system with pressure tempering to keep'em straight. Our heat treater does work for NASCAR and Aerospace companies!

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Coating and Laser Etching

A local company provides our coating (as well as for major gun manufacturer's) with Physical Vapor Deposition (PVD) in DLC / ZrN, a high tech process where the metals used for coating are vaporized and adhered to the blades. The coating is actually harder than the steel! It's science! Then we laser etch the logo to the blade.



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Assembly of Knives

We then attach our scales with stainless steel Torx fasteners (PVD coated to match the blade), then wipe them down with WD40 & CRC.

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Sharpening

Curtis sharpens the knives using different grit belts on the KMG belt grinder. He then uses a 8" felt buffing wheel to hone them.

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Final Quality Checks

Mark ties the lanyard and does a final check sharpness check to make sure they are honed well and look great! Then a second set of eyes do another QC check when packing.



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The Finished Product

Take fancy photo's, make your coin and T-Shirts, go to knife shows, network with friends and go to knife forums to get the word out to the good people of America. Pray that they actually buy them! This is Spartan Blades American Reality (Dream).



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