



## Not Your Daily Grind



Prior to finding Graphite CAD software, John Bicht of Versalab spent 15 years coping with AutoCAD's rigidity and MicroStation's counter-intuitiveness. "The problem was," said Bicht, "you had to figure out the position and dimensions of something before you were even sure you wanted it in the design."

Frustrated, he gave up on CAD and went back to paper and pencil. "Programs like AutoCAD may suit draftspeople," comments Bicht, "but never designers."

In the late '90's Bicht discovered Ashlar-Vellum precision drafting software and immediately fell in love. He soon upgraded to Graphite, though he continued using only its 2D capabilities. "I can state absolutely that if not for Graphite I would still be using paper and pencil." Working in Graphite, Bicht created the M3 Espresso System.

***"I quickly learned how to actually be more fluid in Graphite than I was on paper. I was able to make a complicated machine layout and derive detail drawings faster and easier than I could ever have done on a drawing board."***

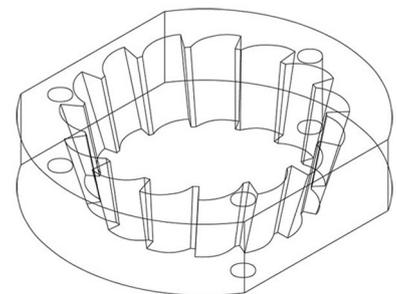
The initial M3 design utilized a set of commercially available metal burrs for grinding the coffee, known for producing superior flavour. Two sets of burrs had been used in the prototypes and now with sales pending, Versalab placed an order for 15 additional sets from the Italian manufacturer. Unfortunately, the Italians had stopped making the burrs. Versalab had fully assembled grinders with no mills. After much negotiation, the Italians offered to make 200 sets of burrs, prepaid, at \$100 per set, scheduled for one-month delivery.

Faced with a \$20,000 problem that Bicht knew would never be delivered in 30 days, he sat down with Graphite CAD software, and having never used Graphite's 3D capabilities, in an hour and a half figured out how to create the complex 3D drawings of the conical-shaped burrs for this first-class coffee grinder. The 3D drawings were quickly converted to IGES files and sent to a water-jet tooling company who manufactured the mills in a fraction of the time and cost.

For the next version of the M3, Bicht is moving from Graphite to Xenon. He will start generating interest among coffee connoisseurs using photo-realistic renderings prior to ever building a physical prototype. Says Bicht, "Ashlar-Vellum allows us to make the M3 Espresso System the most amazing espresso equipment anywhere in the world."



The M3 Grinder's revolutionary design eliminates all residual grounds so there are no oxidized remains from previous grindings.



Bicht created the complex 3D drawings for the M3's conical-shaped burrs in about an hour and a half, never having used Graphite's 3D capabilities before.

### Background/Contact

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