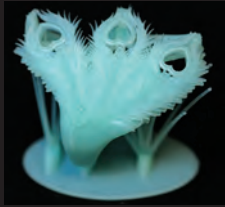
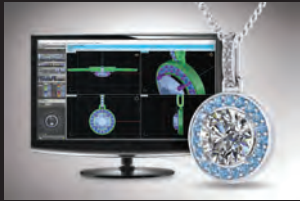


CAD COMPARISON CHART

	 3DESIGN SOFTWARE SOLUTION	 3SHAper SOFTWARE SOLUTION		
CAD PROGRAM	3DESIGN Version 9	3Shaper V2	ArtCAM Premium	
TYPE OF SOFTWARE	3-D parametric software includes parametric creation, sketch module, solid module, jewelry module, and rendering and animation module	3-D subdivision surfaces modeler for freeform and sculpting creations	2-D, 2.5-D, and 3-D	
OUTPUT FILE TYPES	STL, IGES, STEP, OBJ, 3DM, SAT, VDA, EPS, AI, JPEG, PNG, BMP, SWF, FLV, MOV, AVI, MPEG	STL, IGES, STEP, OBJ, XPS, 3DM, SAT, VDA	STL triangle mesh with various user controllable options to close the triangulated 3-D object model. Mesh export options as either binary STL or Delcam DMT. 3-D PDF file output. Raster image file (BMP, TIF, and JPG).	
CAM OUTPUT OPTIONS	STL, OBJ	STL, OBJ	Numerical Control Data (aka Toolpaths) for 3-axis or 4-axis CNC machining or rapid prototyping. Over 200 machine post processors.	
OPERATING SYSTEMS	Windows 7 to 10 (64-bit), Mac OS X Snow Leopard to Sierra	Windows 7 to 10 (64 bit); Mac OS X Snow Leopard to Sierra	Windows 7, 8, and 10 (64-bit)	
PROCESSOR	Intel Core i5 2.5 Ghz or higher	Intel Core i5 2.5 Ghz or higher	Intel Core i5 Quad-Core (or equivalent)	
RAM	8 GB or higher	8 GB or higher	4 GB	
VIDEO CARD	2 GB graphics card or higher	2 GB graphics card or higher	1 GB fully OpenGL 2.0 and DirectX 11 compliant graphics card	
LIBRARIES	Gemstones, ring shanks, settings, findings, presentation items, Swarovski crystals	Gemstones, ring shanks, settings, findings, presentation items, Swarovski crystals	Parametric component libraries, 3-D relief model clipart library, plus video tutorial libraries available online	
PRIMARY CAPABILITIES	3-D CAD software dedicated to jewelry creations; output to RP and milling machines; creation of renderings and animations; estimation of part dimensions, material weight, and stone sizes; parametric construction to easily modify files	3-D modeling of organic and freeform objects by pulling, pushing, modifying edges, and surfaces; output to RP and milling machines; artistic bridge between CAD and sculpting	Complex 3-D relief modeling from 2-D bitmap or vector-based artwork, plus rotary CNC tool-path calculation and STL mesh creation. Includes specialist 3-D tools for engraving, roughing, finishing, and rest milling	

				
	CounterSketch Bridal, CounterSketch Plus, CounterSketch Studio	Matrix Version 8	RhinoGold Version 6	Jewelry CAD Dream V.13
	3-D	3-D	3-D	2-D and 3-D quality modeling engine
	CSG	3DM, IGS, IGES, STEP, OBJ, DWG, DXF, 3DS, SAT, X_T, LWO, RAW, POV, UDO, STL, WRL, VRML, AI, WMF, RIB, CSV, VDA, TXT, SLC, XGL, X(DirectX), ZPR, GF, PM, GDF, FBX, PLY, CD, TSM, KMZ, GTS, PDF, SKP, IGA, TSS, X3DV, XAML	3DM, IGS, IGES, STEP, OBJ, DWG, DXF, 3DS, SAT, X_T, LWO, RAW, POV, UDO, STL, WRL, VRML, AI, WMF, RIB, CSV, VDA, TXT, SLC, XGL, X(DirectX), ZPR, GF, PM, GDF, FBX, PLY, CD, TSM, KMZ, GTS, PDF, SKP, IGA, TSS, X3DV, XAML	STL (Binary or ASCII), IGES, STEP, CATIA 4 and CATIA 5, PARASOLID, DXF, (Binary or ASCII), DWG, VDA, VRML
	Complete manufacturing through Stuller Inc.	STL, SLC, DXF, ZPR, EPS, AI, STEP, OBJ, IGES	STL, SLC, DXF, ZPR, EPS, AI, STEP, OBJ, IGES	STL for rapid prototyping and CNC machining
	Windows 64-bit operating systems: Windows 7, 8, and 10. (English version recommended.)	Windows 64-bit operating systems: Windows 7, 8, and 10. (English version recommended.)	Windows 64-bit operating systems: Windows 7, 8, and 10. (English version recommended.)	Windows XP, 7, 8, and 10
	Intel Quad-Core i7 or faster	Intel Quad-Core i7 or faster	Intel Quad-Core i7 or faster	Dual Core Processor or higher
	4 GB minimum; 8-12 GB or more recommended	8 GB or higher	4 GB minimum; 8-12 GB or more recommended	4 GB or higher
	Nvidia GeForce GTX 750 or better with minimum 1 GB VRAM	Nvidia GeForce GTX 750 or better with minimum 1 GB VRAM	Nvidia GeForce GTX 750 or better with minimum 1 GB VRAM	Nvidia, 1 GB or higher
	CounterSketch Bridal features more than 300 engagement ring starting point styles. CounterSketch Plus offers more than 1,100 bridal, fashion ring, pendant, and more starting point styles. CounterSketch Studio contains the full library of 1,100 starting point styles and an additional library of components to add creative details to designs.	Built-in libraries include adjustable heads, bezels, gems, signet and award rings, eternity bands, engagement ring styles, common jewelry findings, decorative elements, animals, and sport themes. "Style sheets" allow you to save customized parts for continued editing or repeat applications.	Built-in libraries include thousands of adjustable elements, such as shanks, heads, and gems to jumpstart the design process.	All parametrically controlled gems, rings, settings, various sketch libraries, and unique hole cutters. Create your own custom library.
	Features allow a jeweler to interact with customers to design a piece of jewelry in real-time right on the showroom floor. Includes full pricing control, optional integrated Stuller diamond inventory, and Stuller manufacturing options.	Allows users to design virtual jewelry on-screen while generating photorealistic images. Matrix gives you intuitive builders to speed up design and detailed tools to get everything right. Outputs all file types needed for manufacturing.	When you want to build jewelry from parts and pieces with the option to also create from scratch, RhinoGold presents a streamlined workflow and a library of elements. Export designs for your own manufacturing, or send your project directly to Stuller.	3-D jewelry design software with ultra high-definition renderings and animations

CAD, continued

CAD PROGRAM	3DESIGN Version 9	3Shaper V2	ArtCAM Premium	
COMPATIBILITY WITH OTHER CAD SOFTWARE	Illustrator, Corel Draw, Maya, Wavefront, 3D Studio Max, TypeEdit, LaserType, Rhino, SolidWorks	Maya, Wavefront, 3D Studio Max, 3DESIGN CAD	Import 3-D file formats: RLF, IGES, STL, 3D DXF, 3D Studio, DMT, 3DA, OBJ, and Roland PIX. In addition, import filters for all major surface, solid, and standard triangle mesh file formats.	
SPECIAL FEATURES	Parametric construction for easy part editing; dedicated jewelry wizards for settings, stones, and more; customizable interface and shading objects in precious metals; stone report to better calculate and price a piece with many stones; automatic pavé positioning with variations to choose from; 3Shaper Module for sculpting, free-form creation, and textures; and DeepImage for one-click high quality renderings and animations	Refine surfaces for added part resolution, mask surfaces to define the area to be modified, brush tools to directly sculpt with the mouse, connect imported surfaces to make them ready for production, Retopology (additional option) for 3-D scanned parts	Ring finger size selection from standard database. Automatically create or cut flat regions on ring surfaces. Unwrap vectors over ring surface for use with relief extrusion tools. Realistic 3-D toolpath simulation verifies all toolpaths before sending them to the CNC machine. Embossing Wizard to import full 3-D models and produce an embossed bas relief. Vector Doctor option for fixing and repairing imported elements.	
TECHNICAL SUPPORT	Help desk (phone, e-mail, online), training videos, interactive tutorials, users' forum	Help desk (phone, e-mail, online), training videos, users' forum	Subscription includes access to advanced online support	
TRAINING OPTIONS	On- or off-site training classes available in training centers (Los Angeles and Atlanta) or through education partners and distributors throughout the U.S. Online training webinars.	On- or off-site training classes	Local training available via local reseller	
PRICE	\$2,830 - \$6,600	\$1,000 - \$2,500	\$3,000 for annual subscription	
SPECIAL TECHNICAL FEATURES	Parametric construction (construction tree), Hybrid 3-D modeler (solid and surface), multi-platform compatibility (Windows and Mac), Sculpting module 3Shaper	Subdivision surfacing, multi-platform compatibility (Windows and Mac), Retopology option for imported files and 3-D scanned objects	Hundreds of new jewelry designs in 3-D library. Work with colors and color shape editing, do Vector Shape, and select assembly components. Convert simulation block to 3-D relief layer. Toolpath federate optimization. Auto save and recovery feature.	
CONTACT INFORMATION	GravoTech Inc. 17315 Studebaker Road, #315 Cerritos, CA 90703 1-213-624-6321 Fax 678-904-2908 info@3design.us 3design.us	GravoTech Inc. 17315 Studebaker Road, #315 Cerritos, CA 90703 1-213-624-6321 Fax 678-904-2908 info@3design.us 3design.us	Autodesk ArtCAM 3280 Electricity Drive Windsor, ON N8W 5J1 Canada 1-877-335-2262 artcam.com/premium	

	CounterSketch Bridal, CounterSketch Plus, CounterSketch Studio	Matrix Version 8	RhinoGold Version 6	Jewelry CAD Dream V.13
	CounterSketch is a complete design and manufacturing solution.	Any software that can open 3DM, IGS, IGES, STEP, OBJ, DWG, DXF, 3DS, SAT, X_T, LWO, RAW, POV, UDO, STL, WRL, WRML, AI, WMF, RIB, CSV, VDA, TXT, SLC, MTS, MTX, or XGL files	Any software that can open 3DM, IGS, IGES, STEP, OBJ, DWG, DXF, 3DS, SAT, X_T, LWO, RAW, POV, UDO, STL, WRL, WRML, AI, WMF, RIB, CSV, VDA, TXT, SLC, MTS, MTX, or XGL files	Any software that can import the file types listed in output file types
	For those who want to take customization to the next level, CounterSketch Studio incorporates the power of Freehand tools and an ever-growing library of components. With Freehand, jewelers can add creative touches to designs, or create entirely new jewelry combinations.	Step-by-step Builder menus allow you to enter parameters for common jewelry elements and let the software build it. Additional features include precise weight calculations, gem library, bead and prong setting tools, pavé and gem tools, pre-constructed heads, ring resizing, knot builder, and the V-Ray for Matrix rendering engine plus enhanced presentation tools.	Design faster with pre-built adjustable library elements always available as you work. Intuitively generate photorealistic renderings of your designs with Render Studio. Design organic shapes quickly and intuitively with the subdivision modeling tools of Clayoo. Productivity features for weight calculation, 3-D printing set up, and gem layout maps.	Proprietary Pure Hybrid Modeler that enables the user to make organic shapes with Class A Nurbs surfaces. Proprietary Unique History Tree for easier modifications. Proprietary ability to design, control, and change features.
	Gemvision's and Stuller's technical support staff are available to assist during standard business hours. Call toll-free, e-mail, or use integrated live chat to communicate with the technical support staff members. Users have access to an online newsgroup to ask questions and learn from other users.	Available during standard business hours via e-mail or by calling toll-free. Users have access to an online newsgroup to ask questions and learn from other users.	Technical support is available during standard business hours via e-mail or by calling toll-free.	Phone, e-mail, online FAQ, online videos
	Three-day training for one person at Stuller is included with purchase. Online training is available to refresh skills or train additional members of a company.	Five-day training is available at Stuller to get started. Intermediate and advanced classes continue training. Online training is available via the Gemvision Training Academy and step-by-step instructional videos.	Four-day RhinoGold Essentials training is available at Stuller to get you started.	Online training videos. Jewelry CAD Academy. Private online classes available.
	\$2,495 (CounterSketch Bridal) \$3,995 (CounterSketch Plus) \$5,995 (CounterSketch Studio)	\$6,995	\$5,995	Month-to-month subscription: \$150/month; permanent license: from \$3,000
	Intuitive slider controls and detailed profile control. Offers accurate on-demand price quotes, photo-realistic V-Ray renders with props library, and trusted manufacturing through Stuller.	History and style sheets make design changes easy. An F6 menu offers exactly the tools needed at each step of creation. Smart Flow gives you control over complex modeling. Image Trace converts any image into usable curves. Matrix Art gives 3-D depth to flat images.	Generate animated videos for your website automatically. RhinoGold Cloud allows your clients to interact with your designs online, including changing metal and gem combinations. Tools quickly apply and remove actual 3-D finish textures to your designs. Sophisticated pavé layout tools.	Proprietary Hybrid Nurbs Modeler. Proprietary History with high-end associativity and constraints. Proprietary ability to design, control, and change designs.
	Stuller Inc./Gemvision 302 Rue Louis XIV Lafayette, LA 70508 1-800-357-6272 Fax 877-619-1889 info@gemvision.com stuller.com	Stuller Inc./Gemvision 302 Rue Louis XIV Lafayette, LA 70508 1-800-357-6272 Fax 877-619-1889 info@gemvision.com stuller.com	Stuller Inc./Gemvision 302 Rue Louis XIV Lafayette, LA 70508 1-800-357-6272 Fax 877-619-1889 info@gemvision.com stuller.com	Jewelry Cad Cam Masters LLC 11924 W. Forest Hill Blvd., #10A-250 Wellington, FL 33414 1-800-537-8346 support@jewelrycaddream.com jewelrycaddream.com