

# LASER solutions

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ROFIN-BAASEL INC

## StarWeld Laser Saves Jewelers Time & Money

Jewelers who repair, fabricate or cast jewelry can work 65% more efficiently and achieve stronger, more professional results with the Rofin StarWeld laser welder. Its low maintenance, easy operation and reasonable cost make high-tech laser welding an option well within the reach of the smaller independent and bench jewelers.

not soldered. In a weld, the host metal is tapped into and flowed, creating a joint that is 70% to 80% stronger than a soldered joint. Because no solder is used, there are no prep or clean-up costs related to binding, fluxes, pickle and acid baths.

A welded joint is also superior because there is never an off-color seam or a telltale sign of a joint – visible flaws typically associated with soldering.

The StarWeld is particularly useful for the jeweler who works on period pieces, antique repairs or estate restorations. Jewelers have found that the concentrated heat and pinpoint accuracy allows them to easily

complete repairs that they may not have considered taking in the past.

The new, 6th generation StarWeld laser welder is available from Stuller (800-877-7777) and is priced at about \$27,000. Leasing terms are available.



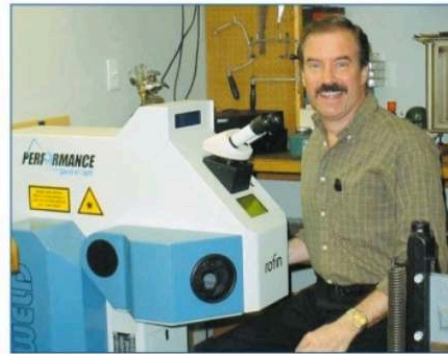
Series of photos illustrates the precision achieved with the StarWeld laser welder.

"With the acquisition of this amazing piece of technology, Barba's can now achieve repairs that were previously impossible with the traditional torch methods," said William Barba, owner of Barba Fine Jewelers in Warren, Ohio.

Laser welding generates a highly localized beam of light at 3,000° Fahrenheit. Because it is directed at such a controlled area, jewelers can safely work around gemstones without removing them. The device is ideally suited for the spot and seam welding of gold, platinum, silver, titanium, copper, aluminum and high-grade steel.

After documenting more than 4,000 jobs performed with both traditional techniques and laser welding, Rofin determined that laser welding is nearly 65% more time efficient.

What's more, the joint in a repair is welded,



William Barba is impressed by the capabilities of his new laser welder.



Laser cutting device was used to achieve the fine cutting and micro detail seen in this precious metal dragonfly wing.

## Micro Laser Cutting Launches Jewelry Manufacturing Into 21st Century

Recent breakthroughs in laser technology promise to bring extraordinary new capabilities and a higher level of sophistication to jewelry manufacturing.

Today, the art of fine cutting and micro detail is no longer an impossibly tedious, manual task. Instead, the power of a laser can deliver quick, incomparably accurate results – in minutes!

Take, for example, the dragonfly wing shown here. The process of making this incredibly

detailed piece started with a black-and-white hand drawing of the wing, which was scanned and coded.

With a simple push of a button, the StarCut Performance workstation took control of the precision cutting process and finished the task in 24 minutes. Upon completion of the cut, the workpiece required little cleanup. If the same job was handled traditionally, it would have taken an expert jeweler more than two weeks to prepare, hand cut and finish.

Of course, few pieces jewelers encounter will be as detailed as the dragonfly wing. Cutting times for simply geometrics, such as name charms, can be as short as 30 seconds when using the laser.

The StarCut Performance workstation can cut platinum, gold, silver and titanium alloys in thicknesses up to 3mm. The workstation is so efficient that it allows a single operator to produce hundreds to thousands of pieces per day.

The price of the workstation ranges from \$65,000 to \$185,000 and leasing options are available.

## Rofin-Baasel's StarCut Laser Brings Speed, Accuracy to Engraving Jobs

Rofin-Baasel's StarCut Performance Series of precision lasers may forever change the way jewelers look at their engraving jobs. By employing the power of a laser, jewelers can engrave precious metal alloys of up to 3mm in thickness to the highest standard of quality and with the most precise detail. Laser engraving significantly reduces the time spent on producing simple-to-complex workpieces and delivers a competitive advantage to high-volume manufac-

turers, as well as small jewelry shops looking to increase market share. The fully automated system is driven by the Rofin SWD-Y: a 100-watt, diode-pumped Nd:YAG laser. The software is Windows based, so anyone with basic computer skills and simple training can operate it easily.



ID bracelet was engraved with the StarCut Performance at 40 mm per second. Total processing time was about 2 minutes.