



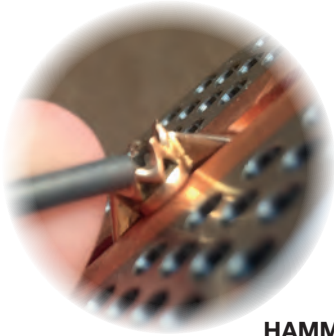
# vallorbe<sup>®</sup>

SWISS

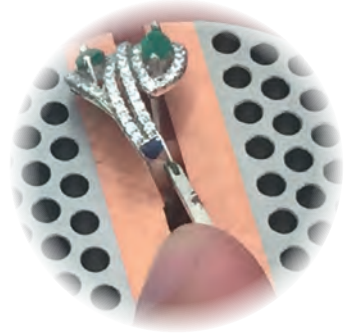
Pneumatic systems and optical tools



APPLICATION NOTE



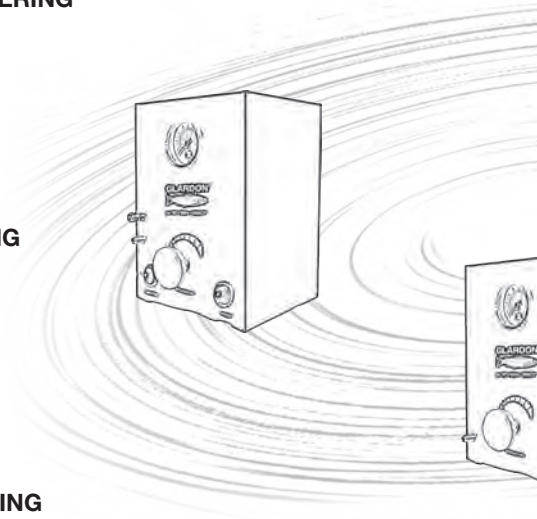
**HAMMERING**



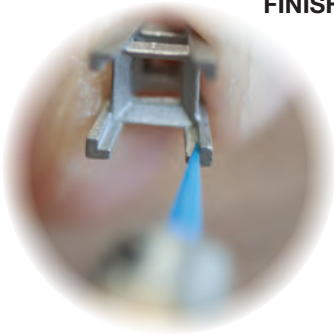
**MILLGRAINING**



**PREPOLISHING SURFACES**



**FINISHING**

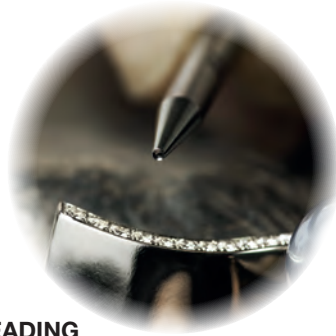


**FINISHING**

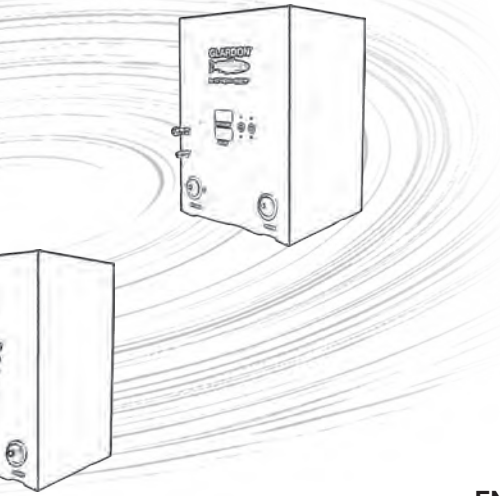




**BEADING**



**BEADING**



**STONE SETTING**





















**ENGRAVING**

**ENGRAVING**











<h2>Technical features</h2>		 <b>EnSet® Plus</b>	 <b>EnSet® Original</b>
<b>RANGE OF APPLICATIONS</b>	Beading, engraving, finishing, hammering, sculpting and metal inlay, stone setting, millgrain and texturing		
<b>AIR CONSUMPTION</b>	<ul style="list-style-type: none"> <li>• No air use during standby mode</li> <li>• Minimal use while working</li> </ul>		
<b>AUTO-PURGING FILTER</b>	<ul style="list-style-type: none"> <li>• Protection against fluids, such as water or oil contamination</li> <li>• No need to clean manually</li> </ul>		
<b>FOOT CONTROL</b>	<ul style="list-style-type: none"> <li>• Enset® electronic heavy duty foot pedal</li> <li>• Precise control on air pulses</li> </ul>		
<b>DESKTOP UNIT</b>	Controls pressure adjustment and power delivery		
<b>FREQUENCY</b>	Working from a single hit to an adjustable frequency from 60 to 3.000 hits/min		
<b>DUAL OPERATION MODE</b>	<ul style="list-style-type: none"> <li>• Dual operation mode</li> <li>• The user can adjust impacts per minute on the front panel and the foot control acts as a pressure regulator</li> </ul>		—
<b>DIGITAL DISPLAY</b>	<ul style="list-style-type: none"> <li>• Pressure</li> <li>• Pulse</li> </ul>		—
<b>OTHER ARGUMENTS</b>	<ul style="list-style-type: none"> <li>• Noise</li> <li>• Size</li> <li>• Price</li> <li>• Maintenance</li> </ul>		



## EnSet® Compact

## Advantages / Benefits

	<ul style="list-style-type: none"> <li>• Easy to use</li> <li>• More versatile, thanks to a unique handpiece adapting to all applications (including finishing, hammering or inlaying)</li> </ul>
	<ul style="list-style-type: none"> <li>• High efficiency and performances by using compressed-air and electricity</li> <li>• Very low energy consumption</li> </ul>
<p>—</p>	<ul style="list-style-type: none"> <li>• Automatic purging (no manual operated filter)</li> <li>• Reliable solution</li> </ul>
	<ul style="list-style-type: none"> <li>• Adjustable, intuitive and controllable</li> <li>• Adjustment of pulse per minutes</li> <li>• As pulse is controlled on pedal operation focuses simply on the workpiece</li> </ul>
	<ul style="list-style-type: none"> <li>• Easy to operate</li> </ul>
	<ul style="list-style-type: none"> <li>• Precision and efficiency</li> <li>• Working from a single hit, is perfect for hammering and beading</li> <li>• Single hit and low speed add a lot of control, prevent damages on delicate gemstones</li> <li>• Other available systems work constantly too fast, causing damage</li> </ul>
<p>—</p>	<ul style="list-style-type: none"> <li>• Perfect for delicate engraving, bright cut like «filet» and smooth start</li> <li>• 2 different ways to operate the equipment</li> <li>• Full control of the impact strength</li> </ul>
<p>—</p>	<ul style="list-style-type: none"> <li>• Precisely view pressure and pulse parameter</li> </ul>
	<ul style="list-style-type: none"> <li>• Less noisy, it causes fewer disturbances to the operator</li> <li>• Compact size to create more space on the workbench</li> <li>• More affordable than competitor's products</li> <li>• Very competitive</li> <li>• Long life</li> <li>• Low maintenance</li> </ul>



*Sharpening solutions: EnSharp® & EnSharp® VersaFixture*

## Advantages / Benefits

Precision sharpener for gravers, cutting tips and tools made of **steel** and **carbide**. Like Glardon® LOM-HSS and Glardon® LOM-C

Easy to reproduce graver geometries, thanks to its accurate angle fixture

Give a «mirror-polish» to Glardon® gravers, to obtain brighter cuts

An essential tool to work with carbide gravers, since those are hard to sharpen

Glardon® gravers sharpened on EnSharp® last longer than traditional sharpened ones

Its speed adjustment is perfect to save time when drastically changing geometry on a graver

Used together, EnSharp® and EnSharp® VersaFixture make possible an efficient and precise sharpening

EnSharp® VersaFixture is a precise graduated fixture, to hold your gravers, ceramic polishers or tools during shaping and sharpening


















EnSharp®





## EnVise® for setters & jewellers

Advantages / Benefits	Setter's EnVise®	Jeweller's EnVise®
High precision stainless steel solution, designed for work such as engraving and stone setting		
Combination of stainless steel and natural wood base allows maintaining grip ; the perfect balance between solid performance and smoothness		
Holds your work securely. Stability and robustness of EnVise® provide maximum control whilst you work		
Exchangeable copper jaws to protect jewellery pieces		
High quality rotation system, the upper mechanism rotates 360 degrees smoothly, while dampening vibration		
Perfect height to set gems under a microscope		—
Double the weight on average vises with the same height to take better impact of pneumatic tools		—
An ideal size to hold bigger elements such as bracelets, knives or gun parts	—	
Does not tilt when using heavy fixtures mounted onto it		



Setter's EnVise®



Jeweller's EnVise®





## Orbital Ring Fixture<sup>®</sup>

### Advantages / Benefits

Specially designed holder to work on jewellery rings in almost limitless positions and angles

Solid system to hold rings and work onto external surface

Allows you to hold rings with adequate clearance

Ease engraving and stone setting processes

Brass collets hold perfectly all ring sizes and require less pressure than plastic ones

Less risk of break or damage thin weak or fragile rings

Avoids need of using shellac to hold rings

Perfect for time saving

No need to spend time cleaning rings from shellac

Compatible with many ball vises







## *Inside Ring Engraving Fixture*

### **Advantages / Benefits**

Specially designed tool to hold your jewellery rings easily

Ideal to engrave or set stones onto inside ring surface

3 adjustment screws with a flexible head make it is easy to hold any ring

6 threaded holes allow any ring configuration including rings set with stones

The wheel holding the ring rotates 360 degrees to allow full access to the inside of the ring

Machined from solid brass to help minimize vibration

Protects the ring from damage





## Technical features



**Leica A60F**

<b>APPLICATIONS</b>	For jewellers, stone setters and engravers <ul style="list-style-type: none"> <li>• Engraving</li> <li>• Stone setting</li> </ul>	The Leica A60F stereomicroscope offers superior optics, thanks to a patented technology called FusionOptics™ which makes this product unique
<b>ZOOM RANGE</b>	It's zoom range allows user to work in a visible area	5x – 30x
<b>WORKING DISTANCE</b>	The large working distance provides sufficient space to easily use tools under the stereomicroscope	<ul style="list-style-type: none"> <li>• 122 mm without Ring Light</li> <li>• 100 mm with Ring Light</li> </ul>
<b>EYEPIECE</b>	<ul style="list-style-type: none"> <li>• Dioptic correction</li> <li>• Suitable for eyeglass wearers</li> </ul>	10x
<b>SCOPE CHARACTERISTS</b>	The large field of observation gives user an excellent overview – a prerequisite for accurately positioning gems or performing precision engraving by hand	<ul style="list-style-type: none"> <li>• FusionOptics™ technology</li> <li>• Object field : 7.7 - 46 mm</li> <li>• Depth of field : 122 mm</li> <li>• Adjustable interpupilar distance : 52 - 76 mm</li> </ul>
<b>VIEWING ANGLE</b>		38 degrees
<b>MAGNIFIER LENS</b>	Achromatic Objective Lens	x1 <ul style="list-style-type: none"> <li>• Zoom factor : 6:1</li> <li>• Zoom range : 5x - 30x</li> </ul>
<b>LIGHT</b>	LED lighting offers two types of illumination for : <ul style="list-style-type: none"> <li>• Matt surfaces</li> <li>• Reflective surfaces</li> </ul>	LED Ring Light with removal diffuser
<b>INCLUDED</b>		<ul style="list-style-type: none"> <li>• Flex Arm Stand</li> <li>• LED Ring Light with removal diffuser</li> </ul>



**Glardon® SZM65**

## Advantages / Benefits

<p>The Glardon® SZM65 stereomicroscope puts together a very precise and clear lens stereomicroscope at an affordable price to work in small surfaces</p>	<p>Optimally suited to the requirements of micro-manufacturing, stereomicroscope systems can effectively increase productivity since working with a stereomicroscope is significantly faster and more convenient</p> <ul style="list-style-type: none"> <li>• Intuitive stereomicroscope system</li> <li>• Easy to use</li> <li>• High productivity</li> <li>• Low costs</li> <li>• Ergonomic design</li> <li>• Comfort and convenience during work lead to a higher quality end product</li> </ul>
<p>7x – 45x</p>	<p>The minimum magnification of 7x involves the systematic use of a lens to change the working range of the stereomicroscope. To improve the working length, the use of a lens is required</p>
<p>140 mm</p>	<ul style="list-style-type: none"> <li>• Optimum access to the workpiece</li> <li>• Easy to operate tools</li> </ul>
<p>10x</p> <ul style="list-style-type: none"> <li>• High precision focusing system</li> <li>• Object field : 4.4 – 28.6 mm</li> <li>• Depth of field : 5 mm</li> <li>• Adjustable interpupilar distance : 51 - 71 mm</li> </ul>	<p>Dioptric adjustment according to the view of the user ; then it is possible for the user to employ it without having to wear glasses</p> <ul style="list-style-type: none"> <li>• Easier handling</li> <li>• Less refocusing</li> <li>• Time saving</li> </ul>
<p>45 degrees</p>	<p>The angle of orientation of the eyepieces enables to work in an optimal position</p>
<p>x0.5</p> <ul style="list-style-type: none"> <li>• Zoom factor : 6.5:1</li> </ul>	<p>To limit the effects of chromatic and spherical aberrations by correcting the focal distances of light beams of different wavelengths to better converge them to the same plane</p>
<p>Led Ring Light</p>	<ul style="list-style-type: none"> <li>• An energy-saving LED illuminator makes lamp replacement unnecessary</li> <li>• The removable diffuser is used to reduce annoying reflections and bright spots ; the lighting is then similar to a fluorescent ring</li> <li>• Diffuser protects the user's eyes</li> </ul>
<ul style="list-style-type: none"> <li>• Articulated Stand</li> <li>• 2 eyepieces 10x</li> </ul>	<ul style="list-style-type: none"> <li>• Leica Flex Arm Stand is perfectly balanced and effortlessly adjustable</li> <li>• Glardon® by Syenset's new Articulated Stand offers all versatility of movement together with a solid structure, avoiding vibration to a superior level</li> </ul>



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**SWISS**

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