GRAVOGRAPH

ENGRAVING SOURCE BOOK
VOL. 27.2

Your Source for all Engraving Supplies & Fabrication Services.

Plastics

Metals

Frames

Badges

Braille

Cutters

Fabrication

Rotary

YAG Laser

Fiber Laser

CO2 Laser

Software

Accessories

Cut to size

innovative **solutions for engraving & marking**

THE GRAVOGRAPH TOTAL SOLUTION

Over 25 global subsidiaries serving customers worldwide...

Troyes, France

Duluth, Georgia - USA

Shanghai, China

A Culture of Excellence

Gravograph is the world's leading manufacturer of rotary and laser engraving machines, materials, impact marking systems, accessories, and engraving software. For over 70 years, Gravograph has remained the industry benchmark. Our systems are the highest quality and the longest lasting. This success is built on three fundamentals: a primary focus on the needs of our customers, continually delivering state-of-the-art technology, combined with industry leading customer service from over 800 employees worldwide.

We pride ourselves on the fact that the majority of people you deal with are company employees. All Gravograph representatives receive engraving, software and materials training. Our technical support team has encountered most issues that you can possibly think of in our industry, and can therefore provide better solutions, faster. Our sales team is also trained to be solutions based, and are concerned with the real needs of the customer. The Gravograph name represents a worldwide network working around the clock (literally) to provide our customers with exceptional permanent marking solutions.

The Gravograph difference is founded on:

- a complete solutions approach: products that are designed to work individually or in harmony
- a complete technology solution: software, accessories, machines and consumables
- a complete support solution: field and telephone technical support, combined with internal and external sales consultants
- a complete training solution: on-site training, phone support, a website knowledgebase and our traveling Engravers Academy

As the leader in the global engraving and marking industry, we have tailored solutions for all applications including personalization, signage and traceability.

The comprehensive Gravograph product line includes:

- the world's largest and most innovative range of rotary engraving systems
- state-of-the-art laser engraving systems
- the world's leader in innovative engraving software designed in-house for use with Gravograph products
- the world's most comprehensive range of high quality engraving materials
- a 24/7 online storefront, the Gravostore, offering a wide range of engraving products
- versatile micro-percussion marking systems
- responsive in-house fabrication services

The total solution concept is completed by GravoStyle™, a single solution software for both laser and rotary engravers. This new generation software enables users to switch engraving technologies, and transfer between engraving applications without changing to another software program.

Gravograph develops and markets the world's highest quality, durable marking solutions to our customers, and exceeds the industry standards for product and service performance. Our global quality management system ensures that our products and services are continuously improved, and that all of our team members are dedicated to ensuring an outstanding customer experience.

Please visit www.gravograph.us for our latest catalog updates

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ROTARY
Rotary Engraving

What engraving method will be used to make the product?

LASER
Laser Engraving

YAG LASER
YAG Laser

What will be the final application of the product?

What will be the final application of the product?

Tactile Braille-legislation compliant signage	Other signage, badges, or identification for flat surfaces	Product identification or labeling for curved or flexible surfaces	Award plaques or trophy plates

Tactile Braille-legislation compliant signage	Other signage, badges, or identification for flat surfaces	Product identification or labeling for curved or flexible surfaces	Award plaques or trophy plates

INDOOR

INDOOR   **ROTARY**

BRAILLE	PLASTIC	METAL	PLASTIC	METAL	PLAQUES
GravoTac Gravoglas 2 (matte)	Gravoply 1 Metallex Gravoply Ultra Gravoply 2 Gravoply 3C Gravoglas 2 GravoTac Gravostrat Gravoply Laser Gravoglas 1	Gravometal Gravostral Gravoxal	Gravoply Ultra Gravolase Gravofoil Gravoply Laser	Gravoxal	Gravoply Ultra Colored and Marbled Steel Colored Aluminum and Trophy Brass Gravostral Gravoxal Gravolase Gravometal

LASER   **YAG LASER**

BRAILLE	PLASTIC	METAL	PLASTIC	METAL	PLAQUES
GravoTac (exterior)	Gravoply Ultra Gravoply Laser Gravolase Metallex	Gravoxal AlumaMark Gravometal (Black) Colored & Marbled Steel	Gravoply Ultra Gravolase Gravoply Laser Stickalase	AlumaMARK	Gravoply Ultra Colored and Marbled Steel Gravoxal Gravolase Gravometal (Black)

OUTDOOR

OUTDOOR   **ROTARY**

BRAILLE	PLASTIC	METAL	PLASTIC	PLAQUES
GravoTac Exterior	Gravoply Ultra Gravoglas 1		Gravoply Ultra	Gravoply Ultra

LASER   **YAG LASER**

| BRAILLE	PLASTIC	METAL	PLASTIC	PLAQUES
GravoTac Exterior Gravoglas 2-Plex	Gravoply Ultra Gravoglas 2 Gravoglas 1	Gravobrass Exterior	Gravoply Ultra Gravofoil	Gravoply Ultra Gravobrass Exterior

WHAT MAKES OUR MATERIALS THE BEST

There are several reasons why Gravograph is the best source for engraving materials. We have the most experience in the industry, as well as the greatest number of resources to help you meet your material needs.   Our educated Customer Solutions Center, 1-800 technical support line, special-order capabilities, and unparalleled QUALITY are the greatest reasons to buy your materials from us.

Quality is a somewhat vague word. Therefore, it is important that we highlight the unique characteristics which make our materials second to none.

RAW MATERIALS – All of our raw materials are 100% prime. This means that we do not use any regrinds. We only use virgin materials. This means consistent thickness and consistent color, which means consistent engraving performance.
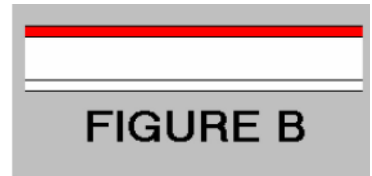
CAP CONSISTENCY – Customers who have used both our material and competitive material continually applaud our cap consistency. This didn't happen by accident. We extrude the cap and core separately, then laminate the layers together days after each layer has cooled and solidified. Each layer is continually monitored with an advanced "gamma backscatter gauge" during the entire extrusion process. Final samples are manually "gauged" after extrusion. The cheaper way to produce the material is to marry the layers together while they are in the extrusion process. This is referred to as "co-extrusion". (See figure A). Problems with this method arise because the products are still in a

FIGURE A

molten state at this stage. While you can maintain a consistent overall thickness, the thickness of each individual layer cannot be accurately maintained.
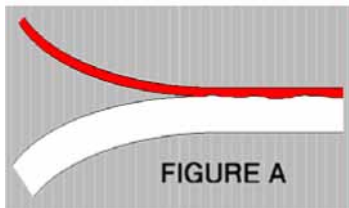
COLOR CONSISTENCY – We only use color concentrates that are controlled to less than 1 E (a variance of 2 E qualifies as a commercial color match). A precise method of metering the color concentrate is also employed. During extrusion, the opacity is periodically tested with a calibrated densitometer, which gives a numerical value of opacity that is compared to the master value. Finally, the finished product is compared to color masters (which are classified by color and surface finish), under Macbeth color inspection lights.

Indoor/outdoor - UV Stable - Our versatile indoor/outdoor materials maintain their original color even in the toughest environments since they are UV stabilized. These materials can also be used for indoor facility signs where UV lighting can affect the color integrity, as well as properties of the plastic.

SHEET FLATNESS – Gravograph uses an in-line extrusion process, which means the material has never been in roll form. This process removes the inherent curling tendencies of rolled product. Then, the lamination process is controlled (through even temperature distribution) to produce a final flat sheet. More importantly, all our 2-ply indoor materials are actually 3-ply materials. The problem inherent with 2-ply indoor materials originates from the fact that the cap and core are made of different materials. This is true with all major engraving sheet-stock providers (not just Gravograph). What happens in this situation is that the materials are pressed completely flat during the heated lamination process, but since the two different materials have different expansion/contraction characteristics, the final product tends to curl a little as it cools. To overcome this problem, we actually put a cap on each side of the core. This layering technique balances the "pulling" from each cap, and the result is a sheet that lays flat. Therefore, when you purchase a

FIGURE B

sheet of red/white Gravoply, the sheet is actually constructed with a red cap, over a white core, over another white cap. (See Figure B) Our outdoor sheet stock (Gravoglas 2-Plex) does not require this triple layer effect, because the cap and the core are actually made of identical modified acrylic.

WHY DO YOU CARE?
We understand the importance of color consistency, but perhaps you've never considered cap consistency as a very important trait. Well, how many times have you had to re-run a job because half-way through completion, the cutter didn't reach all the way through the cap? It's especially frustrating after a large matrixed job runs for over an hour, and you return only to find out the job has to be re-run. Trying to engrave deeper to compensate can add wear to your cutter, reduce your productivity, and "bleed" characters together. How much time have you spent trying to make a "bowed" sheet lay flat? When creating raised letter signage, how many times when weeding the profile material from the base material has it snapped into numerous little pieces requiring extra time to clean? It all comes down to the old adage: **"time is money"**.

It is worth the extra effort to provide a quality product which reduces problem engraving and maximizes your bottom line.

KNOW YOUR PLASTICS

GRAVOPLY ULTRA (p. 17)
Our most versatile product yet. This micro-cap product allows fine detailed engraving similar to a foil cap product (like Gravoply 2,) but the non-foil solid plastic cap offers more overall durability. This cap is so durable, in fact, it can be used indoor or outdoor. Even better, this fully UV stable 2-ply product can be engraved with a rotary or laser engraver. This product is available in a variety of overall thicknesses .020", .062", .090" (0.5 mm, 1.6 mm, 2.4 mm) and offers many matte and satin surface finishes to choose from. Reduce your overall inventory value by stocking just one product line for all your 2-ply needs.

GRAVOLASE (p. 18)
Similar in appearance to the Metallex product line, Gravolase uses many of the same foil cap layers. However, Gravolase uses a core of laserable solid DR plastic, instead of ABS plastic. DR is a special formulation of a modified acrylic known best for its laserability. Available in either a flexible .020" (0.5 mm) or a sturdy .062" (1.6 mm) overall thickness.

GRAVOPLY LASER (p. 19)
An indoor laserable product at a lower price. Construction of material is an acrylic core and a foil cap designed for detailed engraving. This product is offered in a wide range of colors which are laser and rotary engravable. Excellent for interior signage.

FLEXILASE (p. 20)
Flexilase™ is a high-resolution material that is flexible and engraves on rotary and CO2 laser systems. Just 0.25mm (0.01 inches) thick, Flexilase™ is ultra-flexible and an ideal solution for all your engraving needs on curved and flat surfaces. Whatever technology you use—laser or mechanical engraving—Flexilase™ offers outstanding cutting and engraving results.

GRAVOPLY 1 (p. 21)
Still our most popular product, Gravoply 1 is constructed with a standard .010" (0.25 mm) cap layer and perfect for almost any indoor application.

GRAVOPLY 2 (p. 24)
The microthin .001" (0.025 mm) foil cap of Gravoply 2 allows for very fine detailed engraving. While this is perfect for small text and/or intricate logos required of many indoor applications, the thicker cap of Gravoply 1 may be better for many industrial applications where long-term cap durability may be put to the test. Gravoply 2 comes standard with a matte surface finish, but we now have Gravoply 2 Gloss available which has a glossy clear protective cap layer.

GRAVOPLY 3C (p. 26)
3-ply "double-faced" materials typically have a cap on either side of the core, so you can engrave on either side of the material. However, this 3-ply "double-faced" material is constructed with 3 layers to be engraved from one side. The unique composition allows you to create a 3-color interior sign with your engraver. Engrave to .004" (0.1 mm) to expose the first core, and to .012" (0.3 mm) to expose the second core.

METALLEX (p. 27)
It's the plastic that looks like metal. Save weight and expense for all your indoor metallic applications! Most popular for creating badges. Available in a variety of colors and 3 surface styles. The original Metallex is constructed with a laminated metallic foil cap. Metallex 2 has a special surface treatment to add scratch resistance to the beautiful yet sensitive metallic foil cap. Metallex Gloss has an added glossy clear protective cap layer over the metallic foil – designed for the ultimate in scratch resistance.

METALLEX 2 (p. 27)
See Metallex. Metallex 2 has an extra clear coating that is applied to add more protection to the surface.

STICKALASE (p. 28)
Available in black/white or silver/black. This .004" (0.09 mm) thick, adhesive backed laserable plastic is perfect for bar-codes, cylindrical labeling, ID plates or trophy plates. Sold in 4.72" x 32.8' rolls (120 mm x 10 m rolls.)

RUBBALASE (p. 28)
A natural rubber product sold in sheets is perfect for creating high quality rubber stamps with your laser machine.

GRAVOSTRAT (p. 29)
Phenolic is a very rigid fibrous product that can be susceptible to humidity, but is usually chosen for its fire-retardant qualities.

GRAVOTAC (p. 37)
The design of GravoTac provides the core (substrate) and cap (profile) layers separately. By outlining the desired images or text in the adhesive backed profile layer and peeling away the excess material, GravoTac creates raised letter signage compliant with Braille ADA regulations. The raised letter process is also a great way to create multi-colored signage with your engraving machine.

GRAVOGLAS 1 (p. 39)
This acrylic 2-ply is designed exclusively for subsurface engraving, and is suitable for outdoor applications. Gravoglas 1 has a thin micro-cap on a very rigid clear solid acrylic core. The thin cap offers fine detailed engraving – and it is laserable too!

GRAVOGLAS 2-PLEX (p. 40)
Designed with the same .01" (0.25 mm) cap thickness as our standard indoor plastic Gravoply 1, the UV stability of Gravoglas 2-Plex makes it perfect for all outdoor applications. Available in matte, glossy or textured surface finishes for surface or subsurface engraving.

GRAVOFOIL (p. 43)
Sold in sheet form, this .008" (0.2 mm) thick adhesive backed product is for use with a rotary engraver. It creates an industrial strength, permanently engraved sticker. The very flexible PVC construction allows it to conform to many product applications. This material is not suitable for laser engraving.

ACRYLIC (p. 43)
Available in clear, white, and black. Colors are often used for back plating, where you take acrylic and glue and add another material to the surface. This thickness adds to the appearance. Clear acrylic can be subsurface engraved.

VINYL (p. 44)
Used to create vinyl lettering that appears on banners, windows, autos, etc. Typically cut with a vinyl plotter machine, this single-ply adhesive backing material is perfect for almost any outdoor application. Available in .0032" (3.2 mil) thick calendered vinyl, or .0055" (5.5 mil) thick reflective vinyl. Sold in full rolls only.

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KNOW YOUR METALS

KNOW YOUR METALS

GRAVOMETAL PREMIUM BRASS (p. 30)

Now available for a variety of applications. Gravometal has a thin protective lacquer coating to protect the surface from oxidizing over time, but is only suitable for indoor environments.

GRAVOBRASS PREMIUM EXTERIOR BRASS (p. 31)

Gravobrass Exterior is a solid raw brass typically used for office building exteriors, commonly called "Doctor Plates". If you do not want the appearance of aging or oxidizing brass, it will be necessary to coat the final engraved (and likely paint-filled) product with an exterior-grade clear lacquer before or soon after mounting.

GRAVOSTRAL (p. 32)
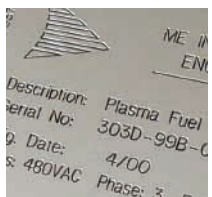
The cap is metal, the core is Phenolic. Perfect for quality interior metal signage. The .010" (0.25 mm) aluminum caps cover a black Phenolic core. You will never need to paint fill this metal product after engraving. This product can save you time and money.

GRAVOXAL (p. 33)

This solid sheet of aluminum has an anodized surface. The anodization colors the actual metal to a depth of .001" to .002" (0.025 mm to 0.05mm) and is typically more durable than a painted surface. For this reason, anodized aluminum is often used for industrial applications requiring a durable surface finish. While anodized aluminum can be engraved with a laser engraver, an engraved contrast will only be realized with gold, black, or colored anodizing. The silver version has a clear anodization.

ALUMAMARK (p. 34)

This special line of anodized aluminum produces black characters when lasered with any standard CO2 laser engraver. No oxidation or paint fill needed. Available in matte silver, satin silver and satin gold in thicknesses .005" (0.127 mm) and .020" (0.508 mm). Also available with adhesive backing.

COLORED STEEL (p. 35)

Colored Steel is actually a brass-plated steel product designed for use with a laser machine. This product returns a brilliant gold lettering when engraved with a laser engraver. The clear layer of lacquer under the polyester-based top coat or paint protects the brass from oxidizing for years to come. The great appearance and low price have made Colored Steel a favorite of trophy shops using laser engravers. Since the top coating is painted with a polyester-based paint, the surface is sublimation-receptive for dye-sublimation transfers. The masking on this product is clear, so you can print your dyes directly through the masking for easier clean up. Sublimation images work best with white, silver or gold colors.

MARBLED STEEL (p. 35)

Built just like our Colored Steel (above), the final layer of paint on marbled steel is a faux marble pattern. All the other great properties of Colored Steel remain the same on this version of Colored Steel.

COLORED ALUMINUM (p. 36)

This aluminum has been painted with a polyester-based paint. It is the preferred choice for economical trophy plates. Since top coating of Colored Aluminum is painted with a polyester-based paint, the surface is sublimation-receptive for dye-sublimation transfers. The masking on this product is clear, so you can print your dyes directly through the masking for easier clean up. Sublimation images work best with white, silver or gold colors.

TROPHY BRASS (p. 36)

An economical brass alternative for signs, trophy plates, awards and plaques designed for use with a rotary engraving machine. Trophy Brass can provide you the rich appeal of engraved brass without the associated cost.

MATERIAL SPECIFICATIONS

	Use	Material	Surface	Method of engraving	Engraving depth
GRAVOLASE METALLICS	Indoor	Modified Acrylic	Brushed/Glossy/Matte	Rotary/Laser	.002" / 0.01mm
GRAVOPLY LASER	Indoor	Modified Acrylic	Matte	Rotary/Laser	.002" / 0.01mm
FLEXILASE	Indoor	Modified Acrylic	Matte/Brushed/Glossy	Rotary/Laser	.002" / 0.01mm
GRAVOPLY 1	Indoor	ABS	Satin/Matte/Textured	Rotary	.012" / 0.03mm
GRAVOPLY 2	Indoor	ABS	Matte/Glossy	Rotary	.002" / 0.01mm
GRAVOPLY 3C	Indoor	ABS	Matte	Rotary	.002"/.014" 0.1mm/0.3mm
METALLEX	Indoor	ABS	Matte/Glossy	Rotary/Laser	.001" / 0.01mm
STICKALASE	Indoor	Plastic	Matte	Laser	.001" / 0.025mm
GRAVOSTRAT	Indoor	Phenolic	Low Glare	Rotary	.012" / 0.03mm
GRAVOTAC	Indoor	Modified Acrylic	Matte	Rotary	.032"/.064" 0.1mm/1.63mm
GRAVOMETAL	Indoor	Brass	Matte/Satin/Glossy	Rotary/Burnish/Diamond/Laser	Rotary .003" 0.1mm
GRAVOSTRAL	Indoor	Phenolic	Matte/Satin	Rotary	.011" /0.03mm
GRAVOXAL	Indoor	Aluminum	Matte/Glossy	Rotary/Diamond/Laser	Rotary .003" 0.1mm
ALUMAMARK	Indoor	Aluminum	Matte/Satin	Laser	.001" / 0.025mm
COLORED STEEL	Indoor	Steel	Satin/Glossy	Burnish/Diamond/Laser	Burnish .002" 0.1mm
MARBLED STEEL	Indoor	Steel	Glossy	Burnish/Diamond/Laser	Burnish .002" 0.1mm
COLORED ALUMINUM	Indoor	Aluminum	Satin/Glossy	Rotary/Diamond	Rotary .001" 0.1mm
TROPHY BRASS	Indoor	Brass	Satin/Glossy	Rotary/Burnish/Diamond	Rotary .006" 0.1mm
GRAVOTAC EXTERIOR	Indoor/Outdoor	Modified Acrylic	Matte	Rotary/Laser	.032"/.064" 0.1mm/1.63mm
METALLEX 2	Indoor	ABS	Matte/Glossy	Rotary/Laser	.001" / 0.01mm
GRAVOBRASS EXTERIOR	Indoor/Outdoor	Brass	Glossy/Satin	Rotary	.003" / 0.01mm
GRAVOPLY ULTRA	Indoor/Outdoor	Modified Acrylic	Matte	Rotary/Laser	.003" / 0.01mm
GRAVOGLAS 1	Indoor/Outdoor	Acrylic	Glossy	Rotary/Laser	.008" / 0.02mm
GRAVOGLAS 2-PLEX	Indoor/Outdoor	Modified Acrylic	Matte/Glossy/Textured	Rotary	.012" / 0.03mm
GRAVOFOIL	Indoor/Outdoor	PVC	Matte	Rotary	.001" / 0.025mm
ACRYLIC	Indoor/Outdoor	Acrylic	Glossy	Rotary	Varies
VINYL	Indoor/Outdoor	Vinyl	Glossy/Reflective	Cutting	.005" / 0.01mm

Due to print variations, material colors represented in this catalog may vary slightly from actual colors.

Recommended cutter	Grinding angles clearance/cutting		Cutter type	Needs lubrication	Saw	Shear	Bend	Stamp	Screen	Sublimatable
34108	40	30	Carbide	N	■	■	■	■	■	
34108-34117	40	30	Carbide	N						
34108-34117	40	30	Carbide	N		■	■	■	■	
34012-34022	40	30	Carbide	N	■	■	■	■	■	
34012-34022	40	30	Carbide	N	■	■	■	■	■	
34012-34022	40	30	Carbide	N	■	■	■	■	■	
34012-34022	38	30	Carbide	N	■	■	■	■	■	
Laser	Laser		Laser	N/A	■			■	■	
33989-33998	38	30	Carbide	N	■					
45704	40	30	Carbide	N	■	■	■	■	■	
34024-34033	40	30	Carbide	Y		■		■	■	
33989-33998	38	30	Carbide	Y	■					
34024-34033	40	30	Carbide	Y		■			■	
Laser	Laser		Laser			■			■	■
34024-34033	N/A	N/A	Carbide	N		■			■	
34024-34033	N/A	N/A	Carbide	N		■			■	■
34024-34033	40	30	Carbide	Y		■			■	
34024-34033	40	30	Carbide	N		■			■	
45704	40	30	Carbide	N	■	■	■	■	■	
34012-34022	38	30	Carbide	N	■	■	■	■	■	
34024-34033	40	30	Carbide	Y	■			■	■	
34108-34117	40	35	Steel	N	■		■	■	■	
34108-34117	40	35	Steel	N*	■		■	■	■	
34108-34117	40	35	Steel	N	■		■	■	■	
33989-33998	38	30	Carbide	N		■			■	
34036-34044	N/A	N/A	Steel	N	■		■	■	■	
34036-34044	N/A	N/A	Vinyl Knife	N		■			■	

GRAVOGRAPH LASER PARAMETERS FOR LS100 & LS100EX - 35W

ACRYLIC

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
30%	100%	1	-	Before	no	Vector	500	-	
60%	100%	1	-	Before	no	Raster	500	-	
100%	1%	1	-	Before	no	Cutting	500	0,3900"	
100%	8%	1	-	Before	no	Cutting	500	0,1170"	
100%	5%	1	-	Before	no	Cutting	500	0,1950"	

ALUMAMARK

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
30%	50%	1	-	Before	no	Vector	500	-	
30%	80%	1	-	Before	no	Raster	500	-	

FLEXILASE

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	
30%	100%	1	-	Before	no	Raster	500	-	Gravogrip advised
35%	30%	1	-	Before	no	Cutting	500	0,0098"	

GRAVOGLAS 1

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
80%	40%	1	-	Before	no	Vector	500	-	Subsurface engraving
80%	40%	1	-0.117"	Before	no	Raster	500	-	Subsurface engraving
100%	18%	1	-	Before	no	Cutting	500	0,0585"	Keep the plastic film on the material
100%	10%	1	-	Before	no	Cutting	500	0,1170"	Keep the plastic film on the material
100%	5%	1	-	Before	no	Cutting	500	0,1950"	Keep the plastic film on the material

GRAVOLASE METALLICS

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	
40%	100%	1	-	Before	no	Raster	500	-	
70%	40%	1	-	Before	no	Cutting	500	0,0195"	
100%	25%	1	-	Before	no	Cutting	500	0,0624"	

GRAVOMETALL MATTE

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
30%	100%	1	-	Before	no	Vector	500	-	For all Gravometall materials
50%	100%	1	-	Before	no	Raster	500	-	For all Gravometall materials

GRAVOPLY 2

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	
50%	100%	1	-	Before	no	Raster	500	-	

GRAVOPLY LASER

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	
40%	100%	1	-	Before	no	Raster	500	-	
80%	30%	1	-	Before	yes	Cutting	500	0,0312"	
100%	28%	1	-	Before	yes	Cutting	500	0,0507"	

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LASER PARAMETERS

* Settings are based on a 35 Watt laser, settings will vary based on your lasers wattage and cleanliness of optics.

GRAVOPLY ULTRA

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	
40%	100%	1	-	Before	no	Raster	500	-	
70%	40%	1	-	Before	no	Cutting	500	0,0195"	
50%	20%	1	-	Before	no	Cutting	500	0,0312"	Gravoply Ultraglow
100%	25%	1	-	Before	no	Cutting	500	0,0624"	
100%	10%	1	-	Before	no	Cutting	500	0,0936"	

GRAVOSTRAT

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
50%	60%	1	-	Before	no	Vector	500	-	
100%	60%	1	-	Before	no	Raster	500	-	

GRAVOTAC EXTERIOR

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
50%	20%	1	-	Before	no	Cutting	500	0,0312"	
100%	25%	1	-	Before	no	Cutting	500	0,0624"	

GRAVOXAL GLOSSY

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
30%	100%	1	-	Before	no	Vector	500	-	For all Gravoxal material surfaces
50%	100%	1	-	Before	no	Raster	500	-	For all Gravoxal material surfaces

GRAVOXAL PREMIUM GLOSSY

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
30%	100%	1	-	Before	no	Vector	500	-	For all Gravoxal Premium material surfaces
50%	100%	1	-	Before	no	Raster	500	-	For all Gravoxal Premium material surfaces

METALLEX INDOOR

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	For all Metallex materials
40%	100%	1	-	Before	no	Raster	500	-	For all Metallex material surfaces

RUBBALASE

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
100%	20%	1	-0.0585"	Before	no	Raster	500	-	
100%	10%	1	-	Before	no	Cutting	500	0,0858"	

STICKALASE

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
10%	100%	1	-	Before	no	Vector	500	-	Gravogrip advised
40%	100%	1	-	Before	no	Raster	500	-	Gravogrip advised
20%	30%	1	-	Before	no	Cutting	500	0,0035"	

TROPHY BRASS

Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
50%	50%	1	-	Before	no	Vector	500	-	
50%	90%	1	-	Before	no	Raster	500	-	

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FABRICATION SERVICES
SAVE LABOR, TIME AND MONEY
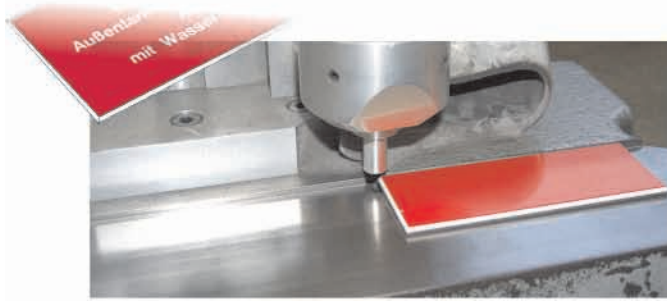
Beveling
Beveling is the cutting of an attractive angular edge in order to create a border. Our standard bevel is at a 45 degree angle.

Drilling holes
To accommodate your mounting needs in plastic and metal.
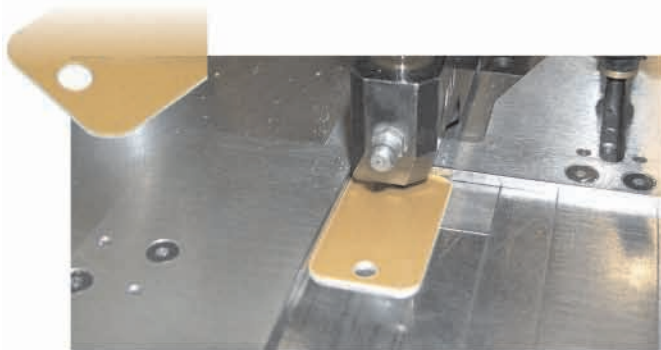
Holes are positioned per your specifications. When measuring holes, follow the illustrated example shown below.

1/2"
12.7 mm

1/4"
6.4 mm

3/16"
4.8 mm

5/32"
4.8 mm

1/8"
3.2 mm

3/32"
2.4 mm

1/16"

1.6 mm
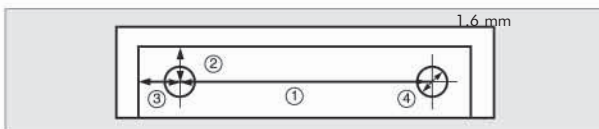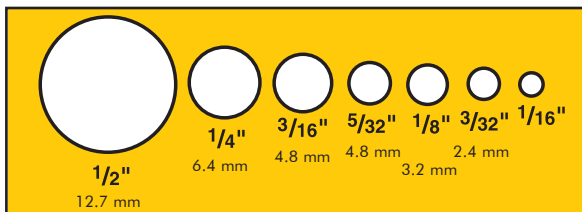
Supply these four measurements:

1. From the center of one hole to the center of the other hole.
2. From the center of the hole to the top edge of the material.
3. From the center of the hole to the side edge of the material.
4. Diameter of any counter-sunk holes to be drilled (for mounting materials and wall holders with flat head screws.) Please ask for a quotation.
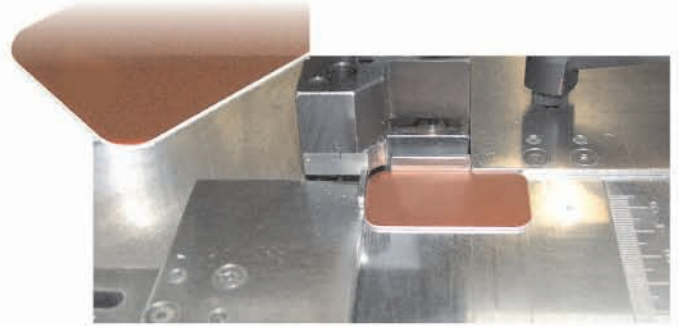
Rounded corners
We offer a wide selection of different radii for rounded corners.

3/4"   19.1 mm
1/2"   12.7 mm
1/4"   6.4 mm
3/16"   4.8 mm
1/8"
3.2 mm   1/16"
1.6 mm
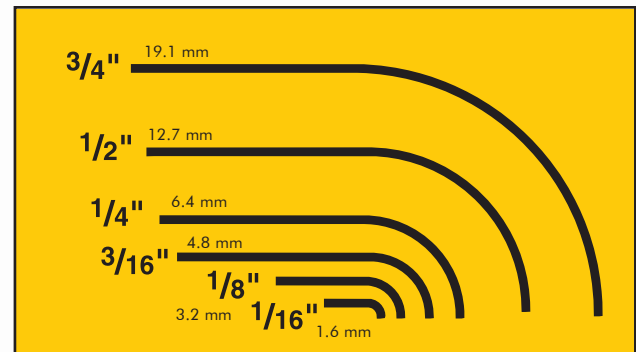
Slotting
For acrylic material. Specify position, angle and width of slot.

Bending
Plastic materials 1/16" (1.6 mm) or thicker (except Phenolic) can be bent into stand-up display signs, badges etc. Maximum length of the bend is 18" long (457.2 mm). Please ask for a quotation.

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FABRICATION SERVICES

FABRICATION SERVICES

Adhesive backing
We can apply adhesive backing to badges, nameplates, strips and sheets. Adhesive backing is applied before cutting material. Please specify interior or exterior use.

Magnetic backing
For temporary mounting of info tags on metal shelves, we can apply magnetic backing to plates, strips and sheets.

Custom solutions
We also deliver cut to size self-adhesive signs in a matrix on a carrier material: • engrave it • take it off • stick it on. For more information, please contact us.

Polishing
Acrylic cut edges can be polished into smooth lustrous finished edges.
Determining linear inch:

8" / 200 mm
2" 50 mm
2" 50 mm
8" / 200 mm

2" + 8" + 2" + 8" = 20 linear inches

50 mm + 200 mm + 50 mm + 200 mm = 500 linear mm
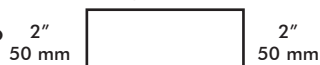
Custom color plastic material
Gravograph provides exclusive color matching services!
Although we offer the largest selection of engraving materials, we understand our customers' special requirements. Gravograph is able to supply proprietary material based on your specifications: color, material, thickness and ply.
If a large job calls for a special color combination, please contact us.

Lead-time
All fabrication orders are custom orders. Many orders ship within one business day. Custom orders may require additional time. Fabrication times are only an estimate, and may vary according to production load. Orders can be rushed for an additional fee.

Return policy
All fabrication orders are non-returnable due to their custom nature. Please ensure that you provide accurate information when placing your fabrication order.

Within the continental US call +1.800.843.7637   Outside the continental US call +1.770.623.0331

FABRICATION SERVICES

...ready to engrave badges

Just like our other cut to size items, badges are available in most of our engraving materials. Our badges include fasteners. Just specify your requirements: size and material, fastener, fused, cemented or bonded hardware; rounded or square corners; with or without beveling.

Types of fasteners

A. Safety pin

A

B.   Clutches

B

C. Magnetic
  • **Standard**
  • **Jumbo**

C

D

D. Superclip

E. Snap clip, swivel

E

Please note:
1/16" (1.6 mm) badges are bonded
3/32" (2.4 mm) badges are fused

We can custom fabricate your plastic or brass sheet badge.
Specify: shape, size and material, fastener, fused, cemented or bonded hardware; rounded or square corners; bevel or no-bevel finished edges.

Please contact our Customer Service Department for a quotation.
    Dial +1.800.843.7637 +1.770.623.0331
    FAX +1.800.533.7637 +1.770.495.3668

Custom fabricated badges and signage

For information on ready-made badges, see pages 55-57

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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CUSTOM SERVICES

CUT TO SIZE

Circular and oval blanks are available from our current range of engraving materials. Custom sizes are available.

Signs with concave corners
Available in cut to size pieces of Gravoply 1, Gravoply 2, Gravoply Ultra, Gravoxal, Metallex, Gravoglas, Gravolase and Gravoply Laser to label push-buttons, etc.
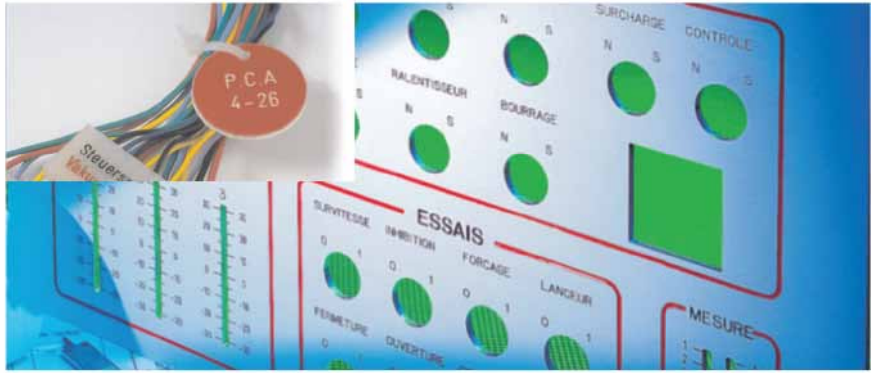
Cutting of concave corners
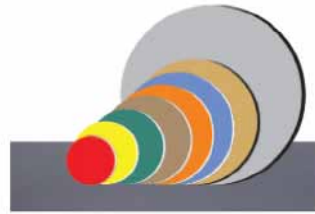
CIRCULAR BLANKS
Custom sizes are available with or without holes.

CUTTING
Custom cutting is available for Gravoply 1, Gravoply 2, Gravoply Ultra, Gravoxal, Metallex, Gravoglas, Gravolase, Gravoply Laser and GravoTac.
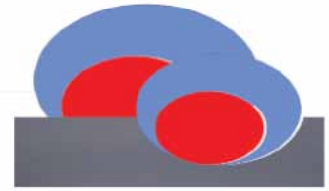
OVAL BLANKS
Custom sizes are available with or without holes.

CUSTOM FABRICATED SHAPES MADE TO YOUR SPECIFICATIONS

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CUSTOM CUT & BEVELED MATERIALS

1 Ply		
Product Line	Thickness	Pricing Category
Gravotac	1/32	B
Gravotac w/adhesive	1/32	C
Gravotac	1/16	B
Gravotac	1/8	E
2 Ply		
Gravoply 1 Value	1/16	A
Gravoply 1	1/32	C
Gravoply 1	1/16	C
Gravoply 1	3/32	E
Gravoply 2	1/32	C
Gravoply 2	1/16	A
Gravoglas 2-Plex Front Matte	1/16	D
Gravoglas 2-Plex Front Matte	1/8	F
Gravoglas 2-Plex Subsurface	1/16	D
Gravoglas 2-Plex Subsurface	1/8	F
Gravoglas 2-Plex Glossy	1/16	D
Gravoglas 2-Plex Glossy	1/8	F
Gravoglas 2-Plex Textured	1/16	C
Gravoglas 2-Plex Textured	1/8	F
Gravoglas 1	1/16	D
Gravoglas 1	1/8	F
Metallex	1/32	C
Metallex	1/16	C
Metallex	3/32	F
Gravolase Metallics	.020"	C
Gravoply Laser	.050"	C
Gravoply Ultra	1/32	C
Gravoply Ultra	1/16	C
Gravoply Ultra	3/32	E
3 Ply		
Gravoply 1	Product Line	D
Gravoply 1	1/8	G
Gravoply 2	1/16	C
Gravoply 2	1/8	G
Gravoglas 2-Plex Front Matte	1/8	F
Gravoglas 2-Plex Glossy	1/8	G

Sq inch*	PRICES PER HUNDRED PIECES						
	A	B	C	D	E	F	G
3	43.31	45.66	48.39	50.67	65.33	70.08	74.56
4	47.96	51.15	54.85	57.95	74.22	80.65	86.73
5	52.78	56.84	61.55	65.48	83.45	91.62	99.35
6	58.41	63.36	69.12	73.91	93.85	103.82	113.26
7	65.49	71.47	78.44	84.24	106.63	118.69	130.11
8	71.85	78.82	86.92	93.67	118.27	132.31	145.60
9	78.56	86.55	95.83	103.57	130.50	146.60	161.83
10	85.54	94.77	105.49	114.43	143.80	162.38	179.97
11	93.06	103.41	115.44	125.46	157.45	178.30	198.04
12	99.03	110.54	123.93	135.09	169.18	192.39	214.36
13	107.29	120.03	134.84	147.18	184.13	209.80	234.09
14	116.08	130.08	146.38	159.95	199.95	228.19	254.90
15	125.66	141.34	159.57	174.76	218.11	249.70	279.59
16	135.68	152.78	172.66	189.24	236.05	270.52	303.14
17	146.40	165.00	186.62	204.63	255.17	292.65	328.10
18	157.93	178.09	201.53	221.06	275.57	316.20	354.64
19	166.30	187.58	212.32	232.93	290.35	333.23	373.80
20	171.05	193.44	219.48	241.19	300.28	345.42	388.12
21	179.79	203.31	230.65	253.44	315.56	362.95	407.80
22	184.54	209.17	237.81	261.69	325.49	375.14	422.12
23	193.74	219.49	249.75	274.40	341.37	393.28	442.39
24	198.47	225.35	256.60	282.64	351.30	405.47	456.71
25	203.22	231.21	263.76	290.88	361.23	417.65	471.04
26	212.94	242.05	275.91	304.11	377.80	436.49	492.00
27	217.68	247.91	283.07	312.36	387.73	448.68	506.33
28	228.02	259.37	295.84	326.21	405.14	468.33	528.13
29,	232.76	265.23	303.00	334.47	415.07	480.52	542.45
30	237.50	271.09	310.16	342.62	425.00	492.71	556.77
31	248.60	283.31	323.67	357.30	443.40	513.37	579.57
32	253.33	289.17	330.83	365.56	453.34	525.56	593.89
33	258.07	295.03	338.00	373.80	463.26	537.75	608.21
34	262.82	300.89	345.16	382.05	473.19	555.18	622.53
35	274.82	314.00	359.58	397.56	492.81	571.80	646.54
36	279.55	319.86	366.74	405.80	502.74	583.99	660.86
37	290.03	331.45	379.64	419.78	520.32	603.82	682.83
38	294.77	337.32	386.80	428.03	530.24	615.90	697.16
39	299.50	343.18	393.96	436.28	540.17	628.19	711.48
40	304.25	349.04	401.12	444.53	550.11	640.38	725.80
41	308.98	354.90	408.28	452.77	560.04	652.56	740.12
42	313.72	360.76	415.44	461.01	569.96	664.76	754.45
43	318.47	366.62	422.60	469.27	579.89	676.95	768.77
44	323.20	372.48	429.77	477.51	589.83	689.14	783.09
45	327.95	378.34	436.93	485.75	599.76	701.32	797.41
46	332.68	384.20	444.09	494.00	609.69	713.51	811.73
47	349.84	402.48	463.67	514.67	636.18	742.26	842.63
48	354.59	408.33	470.83	522.92	646.11	754.45	856.95
49	359.32	414.19	477.99	531.16	656.04	766.64	871.27
50	364.07	420.05	485.15	539.41	665.97	778.82	885.59

*To determine square inches, measure the lenght x the height of the piece.

Discounts

200 pieces, one size.. 10%
500 pieces, one size.. 15%
1000 pieces.. 20%
For pieces larger than 50 sq/in or quantities over 2000, call for quotation.

Please call 1-800-843-7637 or pricing on two-sided bevel, holes, radius corners, adhesive backing and custom bending. Special sizes and thickness will be quoted upon request. **Custom fabricated plates cannot be returned.**

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CUSTOM SERVICES

CUSTOM COLORS ON DEMAND
GRAVOPLY 1

ROTARY · INDOOR · SURFACE

- **Choose over 1,100 color combinations**
- **Four surface finishes available**
- **Over 4,600 specific products**

Colors
Why follow the mainstream? Now you can choose engraving sheets in your own color combination! Just combine any of the cap colors with the core color of your choice. This great feature gives you over 1,100 color combinations of Gravoply 1 from which to choose.

Surface finish
We don't want to limit your imagination. This is why we let you choose your final surface finish as well. Choose from our standard satin, matte, textured, or glossy surface finishes. Now, together with surface finishes you have over 4,600 specific products to choose from in the Gravoply 1 "On Demand" range.

Delivery & pricing
"On Demand" products require 6-8 weeks* for delivery, and have a nominal up charge over our standard stock products for orders of 5 sheets or more. Quantity breaks will also apply to our "On Demand" products. They may be shipped in full, half or quarter sheets, but must be ordered in full sheet equivalents. For example, half sheets must be ordered in pairs and quarter sheets must be ordered in sets of 4.

* Large quantities may require more than 6-8 weeks for delivery. For delivery/pricing/minimum • Please call 1-800-843-7637 for information.

Specifications

Surface	**Satin, glossy, matte, textured**
Profile engraving depth	**.012"/0.3 mm**
Full sheet	**24" x 48" (610 mm x 1220 mm)**
Half sheet	**24" x 24" (610 mm x 610 mm)**
Quarter sheet	**12" x 24" (305 mm x 610 mm)**
Composition	**XT/ABS**

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200ºF/93ºC	Max. temp.	

CAP "Background" COLORS
- white
- almond
- ivory
- yellow
- orange
- burnt orange
- rust
- red
- pink
- passion pink
- burgundy
- cocoa
- bright white
- new york white
- brown
- chocolate brown
- apple green
- grass
- green
- pine green
- maui blue
- blue metallic
- azure blue
- air force blue
- navy blue
- purple
- silver gray
- metallic gray
- light walnut
- american walnut
- glossy walnut
- taupe
- light gray
- black
- evergreen
- candlewick
- slate

CAP "Text" COLORS
- red
- blue
- apple green
- navy
- pine green
- black
- orange
- burgundy
- silver gray
- chocolate brown
- white
- magenta
- yellow
- silver gray
- brown
- teal
- almond
- translucent white
- translucent red
- translucent green
- slate
- candlewick
- evergreen
- rust
- new york white

Within the continental US call +1.800.843.7637   Outside the continental US call +1.770.623.0331

CUSTOM COLORS ON DEMAND
GRAVOGLAS® 2-PLEX

- • Choose your own color combination!

- • Over 500 color combinations
- • Four textures
- • Over 2,000 total choices

Colors

Why follow the mainstream? Now you can choose engraving sheets in your own color combination! Just combine any of the cap colors with the core color of your choice. This great feature gives you over 500 color combinations of Gravoglas 2-Plex to choose from!

Surface finish

We don't want to limit your imagination at all. This is why we let you choose your final surface finish as well. Choose from our standard satin, matte, textured, or glossy surface finishes. Now together with surface finishes you have over 2,000 specific products to choose from in the Gravoglas 2-Plex "On Demand" range.

Delivery & pricing

"On Demand" products require 6-8 weeks* for delivery, and have a nominal upcharge over our standard stock products for orders of 5 sheets or more. Quantity breaks will also apply to our "On Demand" products. They may be shipped in full, half or quarter sheets, but must be ordered in full sheet equivalents. For example, half sheets must be ordered in pairs and quarter sheets must be ordered in sets of 4.

Specifications

Surface	**Matte, glossy, textured, satin**
Engraving depth	**.012" (0.3 mm)**
Full sheet	**24" x 48" (610mm x 1220 mm)**
Half sheet	**24" x 24" (610 mm x 610 mm)**
Quarter sheet	**12" x 24" (305 mm x 610 mm)**
Composition	**DR**

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant		■	UV resistant
Min. temp.		180°F/80°C	Max. temp.

SURFACE COLORS

- white
- eggshell
- cream
- yellow
- orange
- red
- passion pink
- burgundy
- taupe
- chocolate brown
- teal
- grass
- apple green
- verde
- metallic blue
- azure blue
- silver gray
- black
- gold
- silver
- copper
- bronze
- brown
- pine green
- royal blue
- almond
- ivory
- american blue
- maui blue
- sky blue
- gray
- cocoa
- slate

CORE "Text" COLORS

- teal
- red
- azure blue
- black
- verde
- cream
- white
- eggshell
- gold
- clear
- pine green
- chocolate brown
- brown

*Large quantities may require more than 6-8 weeks for delivery. For delivery/pricing/minimum - Please call 1-800-843-7637 for information.

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GRAVOPLY® ULTRA

- **Badges**
- **Award plaques**
- **Interior and exterior signage**

- *Satin or matte finish*
- *Laser and rotary engravable*
- *Unique .002" (0.05 mm) cap layer offers detailed engraving*
- *UV stable*
- *Excellent for laser engraving photos in plastic*
- *Reduce inventory with one material for rotary, laser, indoor and outdoor needs*

Specifications

Surface	Satin or matte
Rotary engraving depth	.003" (0.1mm)
Thickness	.020", 1/16", or 3/32" (0.5 mm, 1.6 mm, 2.4 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	DR

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■	■	Exterior
Shear	■ *	■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■	■ *	Flexible
Break resistant		■	UV resistant
Min temp		180°F/82°C	Max

* .020" (0.5 mm) thickness is shearable and flexible

Surface color	Core color	Matte 2-ply 0.5 mm .020"	Matte 2-ply 1.6 mm 1/16"	Satin 2-ply 1.6 mm 1/16"	Satin 2-ply 2.4 mm 3/32"
white	clear	18965*	19009*		
white	black	18946	18984	29507	
red	white	18949	18987	29512	
red	black		29498	29529	
orange	white		19000	29521	
orange	black		29499	29530	
yellow	black	18955	18993	29511	
blue	white	18952	18990	29510	
black	clear	18962*	19006*		
black	white	18943	18981	29508	29687
white	taupe		29502	29533	
white	red		18997	29514	
white	blue		18996	29518	
taupe	white		29501	29532	
almond	black		29500	29531	
red	gold		29503		
burgundy	white		18980	29516	
burgundy	gold	18958	18999		
green	white			47678	
green apple	white	18970	19012	29513	
forest green	white		19001	29515	
forest green	eggshell		29497	29528	
forest green	gold		18998		
pine green	white		29491	29520	
air force blue	white		29492	29522	29688
navy blue	white		29494	29525	
navy blue	gold		29504		
royal blue	white		19015	29519	
royal blue	gold	18942	18979		
brown	white		29495	29526	
chocolate brown	white		29493	29523	
lt gray	black		29496	29527	
black	silvergray		19005	29517	
glossy black	gold	18973			
matte black	gold	18976	19004		

Gravoply Ultraglow

HIGH PERFORMANCE
Photoluminescent

Please note:
This product allows for a white engraving in the photoluminescent surface. The thickness of 1/32" (0.8 mm) allows profile letters to cut for ADA signage applications. The glow times for this product meet the New York State requirements and conform to the following: ISO:10012-1 Other thicknesses and core colors are available through our Custom Services/On Demand. See pages 15-16.

MIL-STD-45662A

	Surface color	Core color	Matte 2-ply 1/32" (0.8 mm)	Matte 2-ply 1/32" (0.8 mm)/adhesive
○	glow	white	49884	49884A

GRAVOLASE® METALLICS AND NATURALS

LASER ROTARY INDOOR SURFACE

- Badges
- Trophy plates
- Award plaques
- Identification plates

- *Metallic finish*
- *Laser and rotary engravable*
- *.001" (0.025 mm) cap layer offers detailed engraving*
- *.020" (0.5 mm) thickness suitable for beveling*

Metallics

	Surface color	Core color	2-ply	
			0.5 mm	1.6 mm
			.020"	1/16"
●	brushed gold	black	18960	19002
●	european gold	black	29542	29552
●	glossy gold	black	29543	29553
●	brushed bronze	black	29544	29554
○	brushed bronze	white	29545	29555
●	copper	black	29546	29556
●	brushed silver	blue	18968	
●	brushed silver	black	18961	19003
●	glossy silver	black	29548	29558

For preferred laser parameters on Gravelase Metallics, see pages 8-9.

Naturals

●	red marble	gold	34370	29505
●	gray black marble	gold	47387	

Perfect for Awards, Industrial Plates, Panels and more!

Specifications

Surface	Metallic
Rotary engraving depth	.002" (0.1 mm)
Thickness	.020" or 1/16" (0.5 mm x 1.6 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	DR

Capabilities

Interior	■		Exterior
Shear	■	■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■	■	Flexible
Break resistant	■		UV resistant
Min temp.	180ºF /80ºC		Max. temp.

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INDOOR PLASTICS

GRAVOPLY™ LASER

LASER | ROTARY | INDOOR | SURFACE

- **Badges**
- **Identification plates**
- **Interior signage**

- *Laser and rotary engravable*
- *Microthin surface layer for detailed engraving*
- *All surface colors listed are matte finish*
- *Glossy and brushed surface colors are available through On Demand*

Specifications

Surface	Matte, brushed, glossy
Engraving depth	.002" (0.01 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	Acrylic

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant		■ *	Flexible	
Min temp	200ºF/60ºC		Max. temp.	

NOTE: 0.8mm/.030" is the same as 1/32"

Did you know?

On Demand color combinations are available. Mix any cap colors with any core colors. Please call Customer Service at 1.800.843.7637 for more details.

	Surface color	Core color	2-ply 0.8 mm .030"	2-ply 1.3 mm .050"
●	white	red	51047	51006
●	white	blue	51057	51011
●	white	black	51017	49971
●	almond	black	51022	49978
●	yellow	red	51048	51007
●	yellow	blue	51058	51012
●	yellow	black	51018	49973
●	ochre	black	51019	49977
●	orange	white	51035	51005
●	orange	black	51020	51001
●	red	white	51034	49988
●	red	yellow	51055	51009
●	burgundy	white	51043	49997
●	burgundy	gold	51062	51016
●	apple green	white	51042	49996
●	pine green	white	51039	49995
●	sky blue	white	51037	49990
●	sky blue	black	51021	49979
●	blue	white	51036	49989
●	blue	yellow	51056	51010
●	air force blue	white	51038	49991
●	air force blue	gold	51061	51015
●	brown	white	51044	49993
●	chocolate brown	white	51045	49994
●	brushed bronze	black	51032	51004
●	brushed aluminum	black	51025	49981
●	glossy silver	black	51027	49980
●	brushed silver	blue	51059	51013
●	brushed silver	black	51026	49986
●	matte aluminum	black	51024	51002
●	new gold	black	51031	49985
●	european gold	black	51030	49982
●	brushed gold	black	51028	49983
●	glossy gold	black	51029	49984
●	gray	white	51046	49992
●	gray	black	51023	49974
●	black	white	51033	49987
●	black	yellow	51049	51008
●	black	gold	51060	51014

FLEXILASE™

A high resolution material, flexible and laserable

LASER   ROTARY   INDOOR   SURFACE

- **Identification labels**
- **Trophy plates**
- **Labels for curved surface**

- *Laser and rotary engraving and cutting*
- *Very thin and flexible*
- *Excellent for labels*
- *Fine engraving, neat cutting*
- *Delivered with adhesive backing*

Laser engraving & cutting

	Surface color	Core color	2-ply 0.25 mm 0.01"
●	white	black	66984
●	yellow	black	66985
●	orange	black	66986
○	red	white	66997
○	purple	white	67002
○	apple green	white	67001
○	sky blue	white	67000
○	brown	white	67004
●	brushed aluminum	black	66991
●	glossy silver	black	66990
●	matte aluminum	black	67558
●	european gold	black	66989
●	glossy gold	black	66988
○	gray	white	67003
○	black	white	66995

Specifications

Surface	Matte, brushed, glossy
Composition	Acrylic
Profile engraving depth	.002" (0.01 mm)
Full sheet	12" X 24" (610 MM X 305 MM)

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■		Exterior	
Shear	■		Saw	
Silk screen			Hot stamp	
Scratch resistant		■	Flexible	
Break resistant			UV resistant	
Min temp	-20°C	+100°C	Max. temp.	

Did you know?

Custom color combinations are available. Please call Customer Service at 1.800.843.7637 for more details.

GRAVOPLY ® 1

ROTARY   INDOOR   SURFACE

- Interior signage
- Identification plates
- Key tags

- *Satin finish for Gravoply 1*
- *Engraving depth .012" (0.3 mm)*
- *2-ply or 3-ply*
- *Many colors and thicknesses*
- *Abrasion resistant*

Specifications

Surface	Satin
Profile engraving depth	.012" (0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	XT/ABS

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200ºF/93ºC	Max. temp.	

DID YOU KNOW?

We can match any Gravoply cap with any Gravoply core. See page 15 for more details.

CABLES

Bold items are valued priced!

	Surface color	Core color	2-ply 0.8 mm 1/32"	2-ply 1.6 mm 1/16"	2-ply 2.4 mm 3/32"	3-ply 1.6 mm 1/16"	3-ply 3.2 mm 1/8"
●	white	red		**17385**	17484		29699
●	white	burgundy		**29576**			
●	white	azure blue		**17396**	17489		
●	white	black	17263	**17331**	22030	29578	29700
●	white	navy blue	31258				
●	almond	black		**32293**			
●	red	white	17267	**17506**	17472	29580	29702
●	red	black		**17454**			
●	burgundy	white		**17463**			
●	yellow	azure blue		**17373**			
●	yellow	red	31600				
●	yellow	black	17273	**17366**	17478	29579	17525
●	pine green	white		**17410**	17495		
●	navy blue	white	29525	**29581**			29706
●	azure blue	white	17270	**17353**	17475	29603	29705
●	chocolate brown	white		**31641**	31645		29704
●	silver gray	white		**29584**			
●	silver gray	burgundy		**29587**			
●	silver gray	azure blue		**32157**			
●	silver gray	black		**17379**			
●	black	white	17250	**17319**	17467	29604	17521
●	black	red		**29601**			
●	white	magenta		29573			
●	white	apple green		17313			
●	white	pine green		29561			
●	white	teal		29568			
●	white	brown		29575			
●	new york white	burgundy		29570			
●	new york white	brown		29571			
●	ivory	chocolate brown		17310			
●	almond	burgundy		29562			
●	almond	silver gray		32284			
●	rust	white		17448			
●	passion pink	white		45953			
●	pink	white		30384			
●	pink	magenta		29577			

GRAVOPLY® 1

ROTARY INDOOR SURFACE

- Interior signage
- Identification plates

- *Satin finish*
- *Engraving depth .012" (0.3 mm)*
- *2-ply or 3-ply*
- *Many colors and thicknesses*
- *Durable .012" (0.3 mm) cap layer*

**BOITES CLOCHES. FOND
16650
630X630X80
HAN.C.6**

Specifications

Surface	**Satin**
Profile engraving depth	**.012"(0.3 mm)**
Full sheet	**24" x 48" (610 mm x 1220 mm)**
Half sheet	**24" x 24" (610 mm x 610 mm)**
Quarter sheet	**12" x 24" (305 mm x 610 mm)**
Composition	**XT/ABS**

Capabilities

Interior	■			Exterior
Shear	■	■		Saw
Silk screen	■	■		Hot stamp
Scratch resistant	■	■		Flexible
Break resistant	■			UV resistant
Min. temp.		200°F/93°C		Max. temp.

DID YOU KNOW?

Any cap/core combinations can be custom manufactured to be 3-ply. See page 15 for more details.

			2-ply			3-ply	
		0.8 mm	1.6 mm	2.4 mm	1.6 mm	3.2 mm
Surface color	**Core color**	1/32"	1/16"	3/32"	1/16"	1/8"
red	yellow		17445			
burgundy	silver grey		17431			
orange	white		17407	17492		
orange	black		17404			
burnt orange	black	29560	29566			
yellow	white		29564			
yellow	magenta		29565			
teal	white		29569			
maui blue	white		45901			
pine green	almond		29574			
green	white		17393			
grass	white		45892			
apple green	white	17292	17442	17503	29602	
navy blue	silver gray		29582			
blue metallic	white		17363			
azure blue	yellow		17439			
air force blue	white		17428	17500		
purple	white		17436			
cocoa	white		17419			
cocoa	chocolate brown		17413			
brown	white		17388			29703
silver gray	almond		29586			
silver gray	navy		29585			
light gray	black		29583	17379		
metallic gray	white		17376			
black	yellow		17399			
black	silver gray		29572			
light walnut	white		29598			
american walnut	white		29599			29707
glossy walnut	white		29600			

Gravoply® .020" (0.5 mm) & .040" (1.0 mm)

.020 is a very flexible version of Gravoply is most often used for window signs & pipe and plaque messaging.

		2-ply	3-ply
		0.5 mm	1.0 mm
Surface color	**Core color**	**.020"**	**.040"**
white	black/white		31233
black	white	31238	
black	white/black		31250

GRAVOPLY® 1 DESIGN

ROTARY INDOOR SURFACE

- Interior signage
- Identification plates

- *Textured or matte finishes*
- *Textured finish provides extreme scratch resistance*
- *Matte finish offers a glare-free presentation*

Textured Specifications

Surface	Textured
Engraving depth	.012" (0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	XT/ABS

Decor Specifications

Surface	Matte
Engraving depth	.012" (0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	ABS

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200ºF/93ºC	Max. temp.	

DID YOU KNOW?

Don't see the finish color combination you want? We can produce any color combination in any finish. See page 15 for details.

Gravoply®1 Textured

Surface color	Core color	2-ply 1.6 mm 1/16"
white	black	29605
white	red	29606
white	blue	29607
yellow	black	29609
black	white	29610
passion pink	white	45954
red	white	29611
azure blue	white	29612
apple green	white	29613
grass	white	45893
maui blue	white	45950

CHARIOT RETOUR DE COUPE

Gravoply® Matte Decor

Surface color	Core color	2-ply 1.6 mm 1/16"
new york white	slate	29614
evergreen	candlewick	32744
candlewick	evergreen	32743
candlewick	slate	29616
slate	new york white	29617

*Gravoply® Translucent (satin finish)

Surface color	Core color	2-ply 0.8 mm 1/32"	2-ply 1.6 mm 1/16"	2-ply 2.4 mm 3/32"	3-ply 1.6 mm 1/16"	3-ply 3.2 mm 1/8"
black	translucent white		17295			
black	translucent red		17298			
red	translucent white		17301			
white	translucent red		29618			

*Excellent for backlit signs

GRAVOPLY® 2

ROTARY · INDOOR · SURFACE

- **Badges**
- **Identification plates**
- **Interior signage**

- *Microthin surface layer*
- *Perfect for small characters and detailed logos*
- *Low glare matte finish*
- *2-ply and 3-ply*

Specifications

Surface	Matte
Profile engraving depth	.002" (0.1 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	ABS

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200°F/93°C	Max. temp.	

DID YOU KNOW?

We can custom manufacture your badges and all you have to do is engrave. See page 12.

Bold items are valued priced!

	Surface color	Core color	2-ply 0.8 mm 1/32"	2-ply 1.6 mm 1/16"	3-ply 3.2 mm 1/8"	3-ply 1.6 mm 1/16"
●	white	red		**21928**		
●	white	azure blue		**21908**		
●	white	black	21850	**21919**		
●	red	white	21851	**21921**	22016	31697
●	yellow	red		**21913**		
●	yellow	black		**21936**		31528
●	azure blue	white	31401	**21923**		31402
●	black	white	21849	**21917**	29732	31253
●	white	burgundy		21874		
●	almond	burgundy		29709		
●	red	yellow		21910		
●	burgundy	white		21932		
●	yellow	blue		21896		
●	apple green	white		21905		
●	pine green	white		21938		
●	pine green	yellow		21916		
●	sky blue	white		21934		
●	sky blue	black		21895		
●	azure blue	yellow		21911		
●	royal blue	white		21907		
●	brown	white		21930		
●	chocolate brown	white		21876	31647	31644
●	gray	white		21927		
●	gray	black		21915		
●	black	yellow		21940		

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INDOOR PLASTICS

GRAVOPLY® 2

ROTARY   INDOOR   SURFACE

- Badges
- Identification plates
- Interior signage

- Gravoply 2 Gloss has an extra durable scratch resistant glossy cap
- Microthin surface layer
- Perfect for small characters and detailed logos
- Low glare matte finish on woods, granites and tech patterns

The ultimate in scratch and wear resistance!

GLOSS

Gravoply® 2

	Surface color	Core color	2-ply 1.6 mm 1/16"
●	white	black	23977
●	white	red	23981
●	yellow	black	23982
●	red	white	23978
●	emerald green	white	23983
●	blue	white	23979
●	grey	white	23980
●	black	white	23976

Gravoply® 2 Woods

	Surface color	Core color	2-ply 1.6 mm 1/16"	2-ply 3.2 mm 1/8"
●	satin light walnut	white	21885	
●	satin american walnut	white		29707
●	matte american walnut	white	21880	
●	satin colonial walnut	white	21879	

Gravoply® 2 Naturals

	Surface color	Core color	2-ply 1.6 mm 1/16"
●	green marble	almond	22026

Gravoply® 2 Tech Patterns

	Surface color	Core color	2-ply 1.6 mm 1/16"
●	black pinstripe	white	22019
●	silver grid	black	22022

Specifications

Surface	Matte
Profile engraving depth	.002" (0.1 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	ABS

Capabilities

Interior	■		Exterior
Shear	■	■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■	■	Flexible
Break resistant	■		UV resistant
Min. temp.		200°F/93°C	Max. temp.

GRAVOPLY® 3C

ROTARY　INDOOR　SURFACE

- Signage
- Plates with logos
- Badges

- This unique material offers 3 layers of color for surface engraving

- The color revealed depends on the depth of engraving

- Perfect for notification signs or logo signs

	Surface color	Core color	Core color	1.6 mm 1/16"
● ●	white	red	black	23957
● ●	yellow	red	black	23954
● ●	apple green	white	black	23953
● ●	blue	white	black	23956
● ●	red	white	black	23955
● ●	blue	red	white	23952
● ●	yellow	white	black	23949
● ●	black	red	white	23948
● ●	radiant gold	black	white	23950
● ●	brushed aluminum	black	white	23951

GRAVOPLY 3C "Plus" custom combinations

Custom color combinations are available, with minimum quantities as low as 10 full sheets. Delivery time may vary. Please call our Customer Solutions Representatives at 1-800-843-7637 for more details.

Specifications

Surface	Matte
Engraving depth	.002"/.012" (0.1 mm/0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	ABS

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200°F/93°C	Max. temp.	

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INDOOR PLASTICS

METALLEX ®

* LASER   ROTARY   INDOOR   SURFACE

- **Badges**
- **Identification plates**
- **Plaques**

- *Metallex Gloss has an extra durable scratch resistant glossy cap*

- *2-ply silver and gold*

- *Available in glossy and matte finishes*

- *Microthin surface layer*

Specifications

Surface	Glossy, matte or brushed
Profile engraving depth	.002" (0.1 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	ABS

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant (only Metallex 2)	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200°F/93°C	Max. temp.	

DID YOU KNOW?

Metallex® 2 has a protective surface treatment that provides improved surface durability and scratch resistance. Laserable, with limitations.

Metallex® GLOSS

The ultimate in scratch and wear resistance!

Surface color	Core	2-ply 1.6 mm 1/16"
glossy silver	black	23972
brushed aluminum	black	23974
european gold	black	23975
glossy gold	black	23971
brushed gold	black	23973

Metallex® 2

Surface color	Core	2-ply 1.6 mm Glossy 1/16"	2-ply 1.6 mm Matte 1/16"
european gold	black	21884	32734
glossy gold	black	21881	
radiant gold	black	21891	
brushed aluminum	black		21883
glossy silver	black	21882	
radiant silver	black	21892	
frosted silver	black		32732

Metallex®

Surface color	Core	2-ply 0.8 mm 1/32"	2-ply 1.6 mm 1/16"	2-ply 2.4 mm 3/32"
brushed bronze	white		21890	
european gold	black	21836	21903	
glossy gold	black	21822	21886	21954
radiant gold	black	21824	21888	21956
brushed aluminum	black		21898	
radiant silver	black	21825	21889	21957
glossy silver	black		21887	

* LASER

**Metallex products have a laserable foil cap.
When engraving with a laser, please take care to not engrave deep into the ABS core.**
Metallex is not optimized for laser cutting. Laser cutting is possible by making multiple passes in lower power settings.

STICKALASE®
ADHESIVE MATERIAL FOR LABELS

LASER   YAG LASER   INDOOR   SURFACE

• Labels
• Bar codes
• Trophy plates

Available in black/white or silver/black, this .004" (0.09 mm) thickness, adhesive backed, laserable plastic is perfect for barcodes, cylindrical labeling, ID plates, or trophy plates. Use your CO2 laser engraving machine to engrave and/or vector cut custom shapes from flexible and durable material.

Specifications

Surface	Matte
Profile engraving depth	.001" (0.03 mm)
Thickness	.004" (0.09 mm)
Standard size (roll)	4.75" x 32' (120.6 mm x 9.75 m)

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■		Exterior
Shear	■		Saw
Silk screen	■		Hot stamp
Scratch resistant		■	Flexible
Break resistant	■		UV resistant
Min. temp.	32° F	140° F	Max. temp.

Surface color	Core color	0.1 mm .004"
black	white	19871
silver	black	19872

RUBBALASE

LASER   INDOOR   SURFACE

• Rubber stamps

Natural rubber sold in sheets, exclusively for lasering with CO2 laser engraving machines to create inking stamps. Gray in color. .087" (2.2mm) in thickness.

Size of sheet: 8.27" x 11.69" or 210.06 mm x 296.93 mm.

Natural Rubbalase Sheet   19897

Specifications

Color	Gray
Thickness	.087" (2.2mm)
Standard size (sheet)	8.27" x 11.69" (210.06 mm x 296.93 mm)

For preferred laser parameters, see pages 8-9.

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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INDOOR PLASTICS

GRAVOSTRAT® *Phenolic*

• Industrial identification

- Phenolic material
- Low glare finish
- 3-ply
- Resistant to chemicals and solvents
- Non-flammable
- Conforms to USA military specifications ASTM D 709 ES-1, ES-2, ES-3, L-P-387
- Electrically non-conductive and abrasion resistant
- Saw cut
- Interior use
- Adhesive okay on quarter sheets only
- Bevel - yes

Low glare

Surface color		Core color	3-ply	
			1.6 mm	3.2 mm
			1/16"	1/8"
● white		black	30635	30636
● fire red		white	31117	31119
● black		white	30647	30648
● yellow		black	30755	30756

* Additional colors available. Call for more information.

Specifications

Surface	Low glare
Profile engraving depth	.012" (0.3 mm)
Full sheet	36" x 48" (914 mm x 1220 mm)
Half sheet	18" x 48" (457 mm x 1220 mm)
Half sheet	36" x 24" (914 mm x 610 mm)
Quarter sheet	18" x 24" (457 mm x 610 mm)
Composition	**Rigid thermoset material**

Capabilities

Interior	■		Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant			UV resistant
Min. temp.	30ºF/0ºC	200ºF/93ºC	Max. temp.

Note: 18" x 48" (457mm x 1220mm) or smaller ships UPS. 36" x 48" (914 mm x 1220 mm) ships via truck.

This material can be engraved but not cut by a laser.

Premium Brass
GRAVOMETAL

- **Professional plaques**
- **Interior signage**
- **Interior Premium Brass**
- **Award plates**

- *Glossy, satin or matte finish*

- *Diamond, rotary, burnish and laser engraving*

- *Use Gravoxide or paint fill (see page 84) for contrasting letter color*

- *Pre-polished and lacquered*

- *Will tarnish. Use clear UV coat after engraving*

- *.050" (1.3 mm) and 1/16" (1.6 mm) suitable for beveling*

- *.020" (0.5 mm) and .025" (0.6 mm) not suitable for beveling*

LASER (Black only)	YAG LASER (Any color)	ROTARY	INDOOR	SURFACE

			Glossy			Satin				Matte
			0.5 mm	0.6 mm	1.2 mm	0.5 mm	0.6 mm	1.2 mm	1.6 mm	0.5 mm
	Surface color	Core color	.020"	.025"	.050"	.020"	.025"	.050"	1/16"	.020"
○	gold	gold	18407		18435		18423	18438	18441	
○	bronze	gold				18411				
●	black	gold	34674							34675
○	silver	brass					18429♦	62838		

- Gold, bronze and silver return black letters with the use of Gravoxide.
- Black returns gold letters.
- Black is laser engravable.

♦ Limited quantities available

Specifications

Surface	**Glossy, satin or matte**
Engraving depth	**.006" (0.3 mm)**
Engraving depth diamond, burnish and paint fill	**.008" (0.3 mm)**
Full sheet	**12" x 48" (305 mm x 1220 mm)**
Half sheet	**12" x 24" (305 mm x 610 mm)**
Quarter sheet	**12" x 12" (305 mm x 305 mm)**
Composition	**Brass**

Capabilities

Interior	■			Exterior
Shear	■		■	Saw
Silk screen	■			Hot stamp
Scratch resistant				Flexible
Break resistant	■			UV resistant
Min. temp.	30ºF/0ºC	212ºF/100ºC		Max. temp.

For preferred laser parameters on GravoMetal Matte, see pages 8-9.

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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METALS

GRAVOBRASS
EXTERIOR PREMIUM BRASS

- **High quality signage**
- **Ornamental plates**
- **Company name plates**

- *Shiny polished or solid finish*
- *A solid watchmaker's quality brass*
- *Solid brass is unpolished and may contain surface defects*
- *Paint fill with engravers enamel (see page 84)*
- *Use of oxidyzing chemicals on this material is not recommended*

	Surface color	Core color	1.0 mm .040"	1.6 mm 1/16"	3.2 mm 1/8"
○	shiny polish brass	brass	22032	22034	22038
○	solid brass	brass	22031	22033	22037

Specifications

Surface	**Solid or polished**
Engraving depth	**.010" (0.3 mm) for paint fill**
Full sheet	**26" x 52" (660 mm x 1321 mm)**
Half sheet	**26" x 26" (660 mm x 660 mm)**
Quarter sheet	**13" x 26" (330 mm x 660 mm)**
Composition	**Brass**
Coloring	**Engravers Enamel (see page 75)**

Capabilities

Interior	■	■	Exterior
Shear	■ *	■	Saw
Silk screen	■		Hot stamp
Scratch resistant			Flexible
Break resistant	■	■	UV resistant
Min. temp.	212°F/100°C		Max. temp.

* For .040" (1.0 mm) thickness only

Will tarnish. Use clear UV coat after engraving

AMERICAN DENTAL ASSOCIATION
AMY NOBLE
D.D.S.
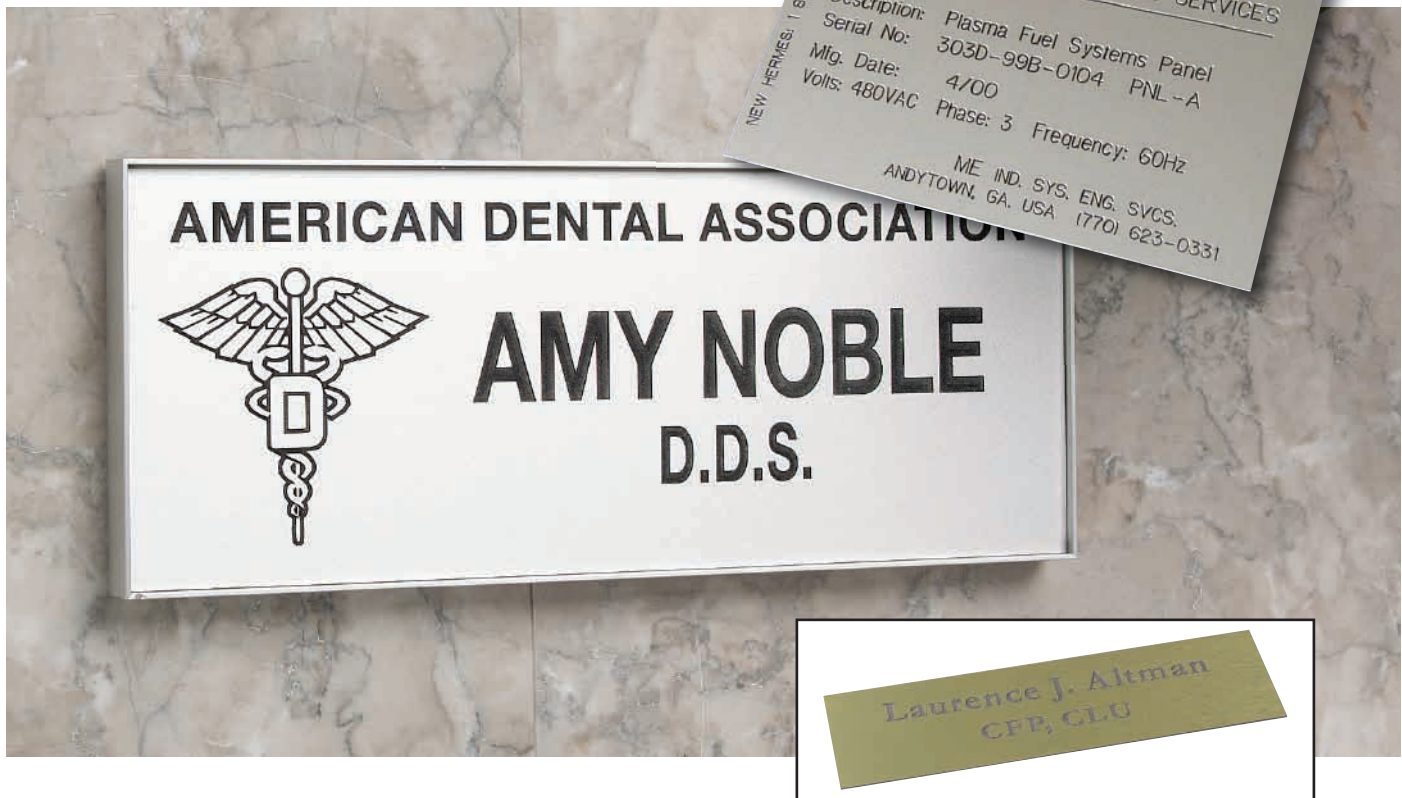
GRAVOSTRAL®

- **Professional interior signage**
- **Award plaques**
- **Identification plates**
- **Signage**

- *One product with two finishes*

- *One side is matte silver and the other is brushed gold*

- *Aluminum caps with a black phenolic core*

- *Black core eliminates the need for a color fill*

- *Use of oxidyzing chemicals on this material is not recommended*

ROTARY — INDOOR — SURFACE

	Surface color	Core	1.6 mm 1/16"	3.2 mm 1/8"
●	gold/silver	black	18472	18482

Specifications

Surface	**Satin or matte**
Engraving depth	**.012" (0.3 mm)**
Full sheet	**24" x 44" (610 mm x 1118 mm)**
Half sheet	**22" x 24" (559 mm x 610 mm)**
Quarter sheet	**22" x 12" (559 mm x 305 mm)**
Composition	**Aluminum/Phenolic**

Capabilities

Interior	■		Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant	■		UV resistant
Min. temp.	30ºF/0ºC	212ºF/100ºC	Max. temp.

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METALS

GRAVOXAL
ANODIZED ALUMINUM
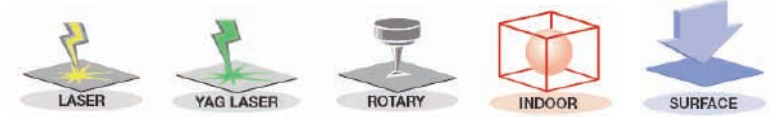
- **Control panels**
- **Legend plates**
- **Award plaques**
- **Signage**
- **Awards**

- *Satin or glossy*

- *.020" (0.5 mm),
  1/32" (0.8 mm)
  and 1/16" (1.6 mm)*

- *For rotary or laser engraving*

- *High detail laser engraving*

Specifications

Surface	**Satin or glossy**
Profile engraving depth	**.004" (0.1 mm)**
Full sheet: .020"	**12" x 24" (305 mm x 610 mm)**
Half sheet	**12" x 12" (305 mm x 305 mm)**
Quarter sheet	**6" x 12" (152 mm x 305 mm)**
Full sheet: 1/32" 1/16"	**24" x 24" (610 mm x 610 mm)**
Half sheet	**12" x 24" (305 mm x 610 mm)**
Quarter sheet	**12" x 12" (305 mm x 305 mm)**
Composition	**Aluminum**

Capabilities

Interior	■		Exterior
Shear	■	■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant	■	■	UV resistant
Min. temp.	30ºF/0ºC	212ºF/100ºC	Max. temp.

		Surface Color*	Core Color	0.5 mm .020"	0.8 mm 1/32"	1.6 mm 1/16"
	○	satin silver	silver	34624	34617	34619
	●	glossy gold	silver	34594	34592	
	●	satin red	silver	34526	34519	
	●	satin blue	silver	34496	34495	
	●	satin black	silver	34454	34452	34453

* With all anodized aluminum, slight color variance will appear

ALUMA**MARK**
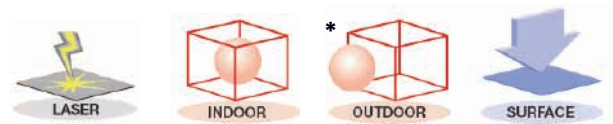
- ID plates

- Bar codes

- Labels

- Control panels

- *Satin finish*

Specifications #1-4

Surface	Satin
Laser power	**6-10 watts**
Composition	**Aluminum**
Full sheet	**20" x 24" (508 mm x 610 mm)**
Half sheet	**12" x 20" (305 mm x 508 mm)**
Quarter sheet	**10" x 12" (254 mm x 305 mm)**

Specifications #5-8

Surface	Satin
Laser power	**6-10 watts**
Composition	**Aluminum**
Full sheet	**12" x 20" (305 mm x 610 mm)**
Half sheet	**10" x 12" (254 mm x 305 mm)**
Quarter sheet	**5" x 12" (127 mm x 254 mm)**

For preferred laser parameters, see pages 8-9.

		Surface color	Core color	0.5 mm .020"
#1	●	satin silver	black	27417
#2	●	matte silver	black	27418
#3	●	satin silver w/adhesive	black	27419
#4	●	matte silver w/adhesive	black	27420
#5	●	satin gold	black	27415
#6	●	satin gold w/adhesive	black	27416
#7	●	satin bronze	black	45881
#8	●	satin bronze w/adhesive	black	45880
#9	●	satin brass	black	45879
#10	●	satin brass w/adhesive	black	45878

*May be used outside with a lacquer coat after engraving.

This special line of gold and silver anodized aluminum returns black characters when lasered with any standard CO2 laser engraver.
No oxidation or paint fill needed, and only requires 6-10 watts of power.

Capabilities

Interior	■	■	Exterior
Shear	■		Saw
Silk screen	■		Hot stamp
Scratch resistant	■		Flexible
Break resistant	■	■	UV resistant
Min. temp.	30ºF/ -1ºC	212ºF/100ºC	Max. temp.

† Power Sensitive Material
 • If image is gray, reduce power.
 • If image is tan, increase power.

COLORED AND MARBLED STEEL

LASER   YAG LASER   ROTARY   INDOOR   SURFACE

Excellent for laser engraving trophy and award plaques

- Trophies and award plaques
- Gold lettering

- *Satin or glossy finish*
- *.015" (0.38 mm) overall thickness*
- *Laser and rotary engraving*
- *Brass-plated steel*

Colored Steel (Sublimatable)*

	Surface color	Core color	0.38 mm .015"
○	satin gold	gold	27421
●	glossy black	gold	27422
●	glossy purple	gold	27423
●	glossy dark green	gold	27424
●	glossy blue	gold	27425
●	glossy red	gold	27426
●	glossy royal blue	gold	27427
●	glossy white	gold	27428

* Our sublimatable metals feature clear protective masking. Mask may remain in place during sublimation.

Marbled Steel

	Surface	Core color	0.38 mm .015"
●	blue marble	gold	27429
●	green marble	gold	27431
●	red marble	gold	27432
●	teal marble	gold	27433
●	black marble	gold	27434

Specifications

Surface	Satin or glossy
Thickness	.015" (0.4 mm)
Full sheet	12" x 24" (305 mm x 610 mm)
Half sheet	12" x 12" (305 mm x 305 mm)
Quarter sheet	6" x 12" (152 mm x 305 mm)
Composition	Brass Plated Steel
Burnishing depth	.002" (0.5 mm)

Capabilities

Interior	■		Exterior	
Shear	■		Saw	
Silk screen	■		Hot stamp	
Scratch resistant	■		Flexible	
Break resistant	■		UV resistant	
Min. temp.	212ºF / 100ºC		Max. temp.	

COLORED ALUMINUM AND TROPHY BRASS

YAG LASER   ROTARY   INDOOR   SURFACE

- Trophies
- Award plaques
- Name plates

- *Satin or glossy finish*

- *Lightweight; easy to shear*

- *Use Carbide cutting tool*

Specifications - Colored Aluminum

Surface	Satin or glossy
Thickness	.025" (0.6 mm)
Rotary engraving depth	.006" (0.2 mm)
Burnishing depth	.002" (0.1 mm)
Full sheet	12" x 48" (305 mm x 1220 mm)
Half sheet	12" x 24" (305 mm x 610 mm)
Quarter sheet	12" x 12" (305 mm x 305 mm)

Specifications - Trophy Brass

Surface	Satin or glossy
Thickness	.020" (0.5 mm)
Rotary engraving depth	.006" (0.2 mm)
Burnishing depth	.002" (0.1 mm)
Full sheet	12" x 24" (305 mm x 610 mm)
Half sheet	12" x 12" (305 mm x 305 mm)
Quarter sheet	12" x 6" (305 mm x 152 mm)

Capabilities

Interior	■		Exterior	
Shear	■			
Saw				
Silk screen	■		Hot stamp	
Scratch resistant (Aluminum only)	■		Flexible	
Break resistant	■		UV resistant	
Min temp			Max. temp.	

Colored Aluminum (Sublimatable)*
(produces silver lettering)

	Surface color	Core color	0.6 mm .025"
○	satin silver	silver	34625
●	satin gold	silver	34595
○	glossy silver	silver	34626
●	glossy gold	silver	34596
●	glossy red	silver	34528
●	glossy blue	silver	34497
●	glossy black	silver	34455
●	glossy white	silver	34426

* Our sublimatable metals feature clear protective masking. Mask may remain in place during sublimation.

Trophy Brass
(produces gold lettering)

	Surface color	Core color	0.5 mm .020"
●	satin gold	gold	34714
○	glossy gold	gold	34715
●	glossy red	gold	34692
●	glossy blue	gold	34679
●	glossy green	gold	34710
●	glossy brown	gold	34682
●	glossy black	gold	34677
●	matte black	gold	61083
●	burgundy	gold	34685
●	glossy royal blue	gold	34694
●	glossy white	gold	34645

This material can be lasered. For best results, use Colored Steel or Premium Brass.

GRAVOTAC™

ROTARY   INDOOR   SURFACE

- ## ADA compliant and tactile signs

- 1/32" (0.8 mm) profile material available with or without adhesives
- 1/16" (1.6 mm) and 1/8" (3.2 mm) single-ply substrates for backplate material
- Depth of profiling for 1/32" (0.8 mm) material: .032-.035" (0.8 mm-0.9 mm)
- Carbide Profile Cutter:
  11/64" (4.4 mm) shank   45704
  1/4" (6.4 mm) shank   45705

Also available:

Weeding tool kit   36409
(to assist in profile removal)

Brush (to clean shavings)   36411

ADA signage manual   33642
(a necessary how-to guide for ADA compliance)

Interior adhesive
   Roll = 24 1/4" x 60 yards   36222

Specifications

Surface	Matte
Engraving depth	.032"/.064"/.125" (0.8 mm/0.6 mm/3.2 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	ABS

Capabilities

Interior	■		Exterior	
Shear	■	■	Saw	
Silk screen	■	■	Hot stamp	
Scratch resistant	■	■	Flexible	
Break resistant	■		UV resistant	
Min. temp.		200°F/93°C	Max. temp.	

Surface/Core color	1-ply			
	0.8 mm	0.8 mm	1.6 mm	3.2 mm
	1/32" profile	1/32" profile/adhesive	1/16" substrate/backplate	1/8"
clear	32729	32729A		
bright white	37042	37042A	29879	31260
white	37033	37033A	29880	31236
translucent white			29881	
almond	37070	37070A	29882	32294
yellow	24998	24998A	29883	
orange	32268	32268A		
rust	32291	32291A	29884	32292
red	25001	25001A	29885	31699
burgundy	28383	28383A	29888	31728
tan	32726	32726A	29889	32727
taupe	37047	37047A	29890	31261
brown	31631	31631A	29891	
chocolate brown	37058	37058A	29892	31646
apple green			29894	
pine green	37060	37060A	29895	31836
metallic blue	37032	37032A	29896	31392
azure blue	37048	37048A	29897	31404
maui blue	45964	45964A	45962	
navy blue	28363	28363A	29898	31360
candlewick	37050	37050A	29899	31410
black	37037	37037A	29902	31256
silver	29931	29931A		
gold	29932	29932A		
teal	29933	29933A	29903	

* For Braille supplies, refer to page 45.

The GravoTac process

Step 1
Adhere 1/32" (3.2 mm) profile material to 1/16" (1.6 mm) or 1/8" (3.2 mm) substrate. Engrave using outline font.

Step 2
Weed (peel) 1/32" (3.2 mm) profile material off substrate.

Step 3
Results: A patented process for producing ADA compliant signage.

GRAVOTAC EXTERIOR™

LASER · ROTARY · INDOOR · OUTDOOR · SURFACE

- **Exterior ADA compliant and tactile signs**

Specifications

Surface	Matte
Engraving depth	.032"/.064"/.125" (0.8 mm/1.6 mm/3.2 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	Impact modified acrylic

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		
Flexible			
Break resistant	■	■	UV resistant

		1-ply			
		0.8 mm	0.8 mm	1.6 mm	3.2 mm
Surface color		1/32" profile	1/32" profile/adhesive	1/16"	1/8"
	clear	29918	29918A	29935	18082
	exterior white	29919	29919A	29936	31237
	black	29920	29920A	29937	31257
	almond	29921	29921A	29938	32295
	red	29922	29922A	29939	31700
	burgundy	29923	29923A	29940	31738
	bordeaux	29924	29924A	29941	31801
	taupe	29925	29925A	29942	
	chocolate brown	29926	29926A	29943	31648
	pine green	29927	29927A	29944	31837
	azure blue	29928	29928A	29945	31406
	maui blue	45963	45963A	45961	
	silver	29931	29931A		
	gold	29932	29932A	-	-
	teal	29933	29933A	29903	-
	copper	29934	29934A	-	-

* For Braille supplies, refer to page 45.

Gravoply Ultraglow

LASER · ROTARY · INDOOR · OUTDOOR

HIGH PERFORMANCE

Photoluminescent

	Surface color	Core color	1/32" (0.8 mm)	1/32" (0.8 mm)/adhesive
○	glow	white	49884	49884A

Matte 2-ply

Please note:
This product allows for a white engraving in the photoluminescent surface. The thickness of 1/32" (0.8 mm) allows profile letters to cut for ADA signage applications. The glow times for this product meet the New York State requirements and conform to the following: ISO:10012-1 Other thicknesses and core colors are available through our Custom Services/On Demand. See pages 15-16.

MIL-STD-45662A

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INDOOR/OUTDOOR PLASTICS

GRAVOGLAS® 1

LASER   ROTARY   INDOOR   OUTDOOR   SUBSURFACE

- Outdoor signage
- Professional name plates
- Interior and exterior signage

- High detail engraving
- Glossy finish
- Excellent UV resistance
- A fine silk-screened layer
- Subsurface engraving
- Resistant to chemical agents
- A range of 11 colors
- Subsurface engraving allowing multiple color signage to be produced with paint fill (see page   )
- Easy to keep clean surfaces

Subsurface engrave

Glossy

Surface color		Core color	1.6 mm	3.2 mm
			1/16"	1/8"
●	black	clear	18138	18183
	white	clear	18141	18193
●	red	clear	–	18201
●	blue	clear	–	18207
●	sky blue	clear	–	18214
●	yellow	clear	–	18217
●	green	clear	–	18223
●	burgundy	clear	–	18232
●	gold	clear	18168	18235
●	slate	clear	18171	18244
●	old gold	clear	18174	18252

Specifications

Surface	Glossy
Rotary engraving depth	.008" (0.2 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	Acrylic
Coloration	Engravers Enamel

For preferred laser parameters, see pages 8-9.

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant		■	UV resistant
Min. temp.	176°F/80°C		Max. temp.

Saint-Tropez

GRAVOGLAS®
2-PLEX

- Interior and exterior signage
- Professional plates
- Indoor and outdoor directories

- 3 surface choices
- Indoor and outdoor
- UV stable
- Adhesive available
- 3-ply

Specifications

Surface	Matte, glossy, textured
Engraving depth	.012" (0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	DR

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant		■	UV resistant
Min. temp.	180°F/82°C		Max. temp.

DID YOU KNOW?

You can order any Gravoglas 2-Plex cap with any Gravoglas 2-Plex core. See page 16 for more details.

ROTARY   INDOOR   OUTDOOR   SURFACE

Surface engrave

Matte

	Surface color	Core color	2-ply 1.6 mm 1/16"	2-ply 3.2 mm 1/8"	3-ply 3.2 mm 1/8"
●	white	red	29627		
●	white	azure blue	29628		
●	white	black	17875	29904	29912
●	eggshell	verde	29630		
●	cream	verde	29632		
●	yellow	black	17881		
●	orange	black	29633		
●	orange	white	47230		
●	red	white	17877	29905	
●	bordeaux	cream	29634		
●	burgundy	white	17883	34367	
●	passion pink	white	45952		
●	taupe	eggshell	29635		
●	chocolate brown	white	29636		
●	teal	white	29637		
●	grass	white	45890		
●	apple green	white	17885	29906	
●	verde	eggshell	29639		
●	verde	cream	29640		
●	metallic blue	white	29641		
●	maui blue	white	45899		
●	azure blue	white	17879	29907	
●	silver gray	black	17887	29908	
●	gold	black	29642	29910	
●	black	white	17873	29911	29913
●	black	gold	29643		

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INDOOR/OUTDOOR PLASTICS

GRAVOGLAS® 2-PLEX

- **Interior and exterior signage**

- **Professional plates**

- **Indoor and outdoor directories**

- *3 surface choices*

- *Indoor and outdoor*

- *UV stable*

Surface engrave

Glossy

Surface color	Core color	2-ply 1.6 mm 1/16"	2-ply 3.2 mm 1/8"	3-ply 3.2 mm 1/8"
white	red	17907	18063	
white	azure blue	17904		
white	black	17892	18051	29914
red	white	17895	18054	
passion pink	white	45951		
burgundy	white	17913		
brown	white	29644		
chocolate brown	white	29645	29650	
yellow	black	17901	18060	
grass	white	45889		
apple green	white	17910	18066	
pine green	white	17918	18072	
metallic blue	white	29646		
maui blue	whit	45898		
azure blue	white	17898	18057	
royal blue	white	29647		
gold	black	17927	18075	
silver	black	17930		
copper	cream	29648		
copper	black	17924		
black	white	17889	18048	29915
almond	bloc	34403		

Textured

Surface color	Core color	2-ply 1.6 mm 1/16"	2-ply 3.2 mm 1/8"
white	black	18304	
white	red	18325	
white	pine green	18337	
almond	black	34404	
ivory	chocolate brown	18346	
yellow	black	18334	
red	white	18307	29916
brown	white	18328	
grass	white	45891	
apple green	white	29654	
pine green	white	18343	
azure blue	white	18310	
maui blue	white	45900	
american blue	white	18313	
silver gray	black	18322	
gray	white	18319	
black	white	18301	29917

Specifications

Surface	Matte, glossy, textured
Engraving depth	.012" (0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	DR

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant		■	UV resistant
Min. temp.	180ºF/82ºC		Max. temp.

GRAVOGLAS® 2-PLEX

- **Interior and exterior signage**

- **Professional plates**

- **Indoor and outdoor directories**

- *Indoor and outdoor*

- *UV stable*

- *Subsurface engraving allowing multiple color signage to be produced with paint fill (see page   4)*

Specifications

Surface	Glossy, matte
Engraving depth	.012" (0.3 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	DR
Coloration	Engravers Enamel (see page)

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant		■	UV resistant
Min. temp.		180°F/82°C	Max. temp.

ROTARY   INDOOR   OUTDOOR   SUBSURFACE

Subsurface engrave

Glossy

	Surface color	Core color	2-ply 1.6 mm 1/16"	2-ply 3.2 mm 1/8"
○	clear	clear	29655	29657
○	white	clear	17988	18021
●	red	clear	17997	18030
●	burgundy	clear	18006	
●	azure blue	clear	18000	
●	maui blue	clear	46046	
●	silver gray	clear	29656	
●	silver	clear	34407	
●	gold	clear	17982	
●	copper	clear	17979	34409
●	black	clear	17991	18024

Matte

	Surface color	Core color	2-ply 1.6 mm 1/16"	2-ply 3.2 mm 1/8"
○	clear	clear	29935	18082
○	white	clear	17947	18086
○	eggshell	clear	33982	
○	almond	clear	33976	33977
○	cream	clear	29658	
●	yellow	clear	17956	
●	red	clear	17950	18088
●	passion pink	clear	46049	
●	bordeaux	clear	29659	
●	burgundy	clear	17976	18090
●	cocoa	clear	29660	
●	taupe	clear	29661	
●	chocolate brown	clear	17970	34363
●	grass	clear	46047	
●	apple green	clear	17973	
●	verde	clear	29662	34381
●	azure blue	clear	33961	33962
●	american blue	clear	29663	
●	sky blue	clear	29664	
●	royal blue	clear	29665	
●	metallic blue	clear	29666	
●	maui blue	clear	46046	
●	teal	clear	34416	
●	silver gray	clear	17961	34406
●	slate	clear	29667	
●	bronze	clear	29668	
●	silver	clear	29669	
●	gold	clear	29670	
●	black	clear	33953	33955

GRAVOFOIL

ROTARY · INDOOR · OUTDOOR · SURFACE

- **Industrial signage**
- **Permanent labels**

- *Matte finish*
- *Very flexible*
- *Interior and exterior*
- *Very resistant to acids and solvents*
- *Comes with adhesive back*

Specifications

Surface	Matte
Engraving depth	.001" (0.025 mm)
Full sheet	18" x 25" (457 mm x 635 mm)
Half sheet	12.5" x 18" (317.5 mm x 457 mm)
Quarter sheet	9" x 12.5" (228.6 mm x 317.5 mm)
Composition	PVC

Capabilities

Interior	■	■	Exterior
Shear	■		Saw
Silk screen	■		Hot stamp
Scratch resistant	■	■	Flexible
Break resistant	■	■	UV resistant
Min. temp.	160°F/70°C		Max. temp.

	Surface Color	Core Color	0.2 mm .008"
●	white	black	18448
○	black	white	18446
●	blue	white	18452
○	purple	white	18469
●	yellow	black	18456
○	brown	white	18458
○	red	white	18450
○	green	white	18460
○	gray	white	18454
●	orange	black	18462
●	gold	black	18464
●	silver	black	21811
●	copper	black	18467

Caution: Gravofoil is not laser engravable. Damage to laser engraver may result.

ACRYLIC

LASER · ROTARY · INDOOR · OUTDOOR · SURFACE · SUBSURFACE

- **Interior and exterior sign applications**

- *Glossy finish*
- *Excellent for clear signage*
- *Laser and rotary engravable*
- *Indoor and outdoor*

Color	3.2 mm 125"	6.4 mm .250"
white	58820	58821
opaque black	34096	34098
clear	33971	33972

Acrylic Sheets
Can be engraved, paint filled, or used for cut-outs. Another common use is to simply add thickness to an engraved sheet of metal or plastic. The added thickness has a stronger presence on the wall – especially helpful if the sign is not framed.

Specifications

Surface	Glossy
Engraving depth	.010" (0.25 mm)
Full sheet	24" x 48" (610 mm x 1220 mm)
Half sheet	24" x 24" (610 mm x 610 mm)
Quarter sheet	12" x 24" (305 mm x 610 mm)
Composition	Acrylic

Capabilities

Interior	■	■	Exterior
Shear		■	Saw
Silk screen	■	■	Hot stamp
Scratch resistant	■		Flexible
Break resistant	■	■	UV resistant
Min. temp.	-40°C/1°F	80°C/176°F	Max. temp.

Use acrylic to add thickness to metal and plastic signs

For preferred laser parameters, see pages 8-9.

CALENDERED AND REFLECTIVE VINYL

ROTARY INDOOR OUTDOOR SURFACE

- **Interior and exterior sign applications**

- *Semi-gloss finish*
- *Indoor and outdoor*
- *Resistant to most oils, alkalies and mild acids*
- *Great for banners and window signs*

STORE HOURS
Mon-Fri - 8:00am-5:00pm
Sat - 9:00am-6:00pm
Sun - 10:00am-3:00pm

Specifications

Surface	Semi gloss
Calendered thickness	.0032" (3.2 mil/0.08 mm)
Standard size	15" x 50 yard roll Friction fed (381 mm x 45.72 m)

Specifications

Surface	Semi gloss
Reflective thickness	.0055" (5.5 mil / 0.139 mm)
Standard size	14" x 10 yard roll (355.6 mm x 9.14 m)

Capabilities

Interior	■	■	Exterior
Shear	■		Saw
Silk screen	■		Hot stamp
Scratch resistant	■	■	Flexible
Break resistant	■	■	UV resistant
Min. temp.	-40°F	180°F	Max. temp.

Calendered Vinyl

	Color	3.2 mil / 0.08 mm .0032"
	white	36714
	yellow	36721
	beige	36723
	orange	36729
	red	36724
	pink	36726
	burgundy	36725
	brown glossy	47653*
	apple green	36727
	sky blue glossy	48397*
	azure blue	36717
	black	36715
	silver	36731
	gold	36730

*Gloss finish

Reflective Vinyl

	Color	5.5 mil / 0.139 mm .0055"
	white	36732
	yellow	36735
	blue	36734
	black	36733

Accessories

	Part no.
15" (381mm) pounce paper - 250 yards (228.6 m)	36754
15" (381mm) pounce paper - 500 yards (457.2 m)	36755
2 1/4" (57.15mm) application tape - 100 yards (91.44 m)	36706
3 1/4" (82.55mm) application tape - 100 yards (91.44 m)	36707
4 1/4" (107.95mm) application tape - 100 yards (91.44 m)	36708
14" (355.6mm) application tape - 100 yards (91.44 m)	36709
24" (609.6mm) application tape - 100 yards (91.44 m)	36710
Squeegee	36752
Weeding tool kit	36409

Caution: This product is not laser engravable. Damage to laser engraver may result.

Recommended ADA sign materials: Gravotac, Gravotac Exterior, 2 Plex, Gravoglas 1 & 2

Raised letter profile cutters

For creating raised tactile ADA sign lettering. Top load tools are 6 1/4" length for standard spindle. Bottom load tools are for use with a collet spindle.

Profile cutter 11/64" top load, .010 Tip	45704
Profile cutter 1/4" top load, .010 Tip	45705
Profile cutter 1/4" 2" bottom load	48509

Raster™ Braille drill cutters

Carbide Raster Braille drill cutter 11/64" for plastic	36396
Carbide Raster Braille drill cutter 11/64" for acrylic	48507
Carbide Raster Braille drill cutter 1/8" for plastic	49239
Carbide Raster Braille drill cutter 1/4" for plastic	36408
Carbide Raster Braille drill cutter 1/4" - 2" bottom load	48508

Collet drill assemblies

Adapter tool to hold spiral drill bits for metal and acrylic. Intalls in top load spindle like a standard cutter and has a hollow adjustable end to hold the bit. Come with wrench.

Carbide Raster™ Drill Bit for Metals

Collet Drill Assembly with Wrench

Collet drill assembly, 11/64", top load	34327
Collet drill assembly, 1/4", top load	48511
Collet drill assembly, 1/4", bottom load	48512
Drill bits for Collet Drill Assembly:	
Carbide drill bit for inserting acrylic Raster™ in metals (brass, aluminum or steel)	48506
Carbide drill bit for inserting metal Raster™ in metals (brass, aluminum or steel)	36423
Carbide drill bit for steel, bottom load (requires 1/8 collet)	47343

Cutters for inlay tactile raised letters

Carbide .040 inlay cutter 11/64", top load	36395
Carbide .040 inlay cutter 1/4", top load	36407

Braille kit/Raster™ insertion tools

Raster™ Braille kit includes Raster™ Pen & License, Manual: How to Create Great Looking Interior Signage, 10,000 clear Raster™ beads, Profile cutter, Raster™ bead cutter, weeding tool & cleaning brush · · · · · · 41714

Raster™ Pen - Semi-automatic hand held Braille insertion tool · · · · · · 36425

Auto-Raster™ Deluxe – Attaches directly to engraver to automatically insert Raster™ beads Replacement for 36421	48008
Auto-Raster™ spring upgrade for pn 36421 (pre-2007 Auto-Raster)	48009
ADA interior signage manual with CD-ROM	33642
ADA interior signage manual with CD-ROM (upgrade)	48510
ADA Automation Kit for IS400 and ISx000 Large Tables (requires UCB version controller with '-11' s/n) - Raster™ pen sold separately	61925
ADA Automation Kit for IS7000/8000 Raster™ pen sold separately	65245
Large Table Head Adapter Kit for mounting 61295. Requires USB controller and s/n prior to '-10'	23693

Precision Raster™ Spheres for Braille

Clear Raster™ (10,000 beads)	35665
White Raster™ (10,000 beads)	35666
Black Raster™ (10,000 beads)	35664
Brass Raster™ (1,000 beads)	35683
Stainless Steel Raster™ (1,000 beads)	35684

Tape and Supplies for Braille Sign Making

|	
Low tack pre-mask tape (1.25" x 100 yds) (31.75 mm x 91.4 m) - For Raster™ Braille adhesive assist method to insert Rasters™ into metal, Corian, marble, wood, etc. This is a pre-mask tape applied to the sign prior to drilling raster holes. This narrow size is the preferred size.	48495
Low tack adhesive pre-mask tape (4.25" x 100 yds) (107.95 mm x 91.4 m) Same use as 48495 only wider.	35662
926 adhesive tape Glue-on liner for Raster™ Braille adhesive assist method on metal, Corian and other non-porous surfaces. Used in conjuction with low tack tape 1/2" (12.7 mm) x 18 yds	35663
Low tack double-faced tape to secure engraving stock to table	48496
High tack double face cloth tape 1" (25.4 mm) x 25 yds	32807
Weeding tool kit for removing unwanted pieces of tactile letters	36409
Cleaning brush	36411

See page 83 for full line of tapes and adhesives

Within the continental US call +1.800.843.7637   Outside the continental US call +1.770.623.0331
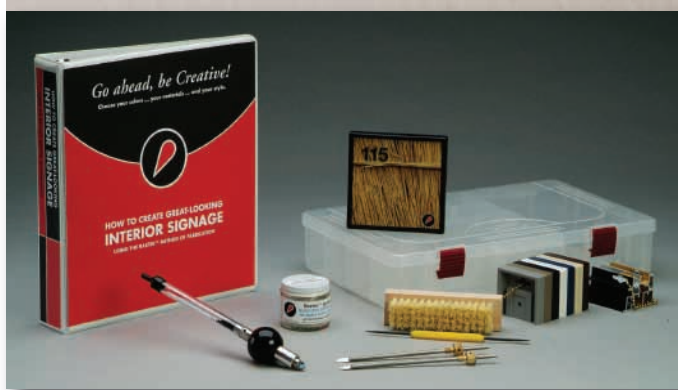
Automatic
Insertion
Accessory
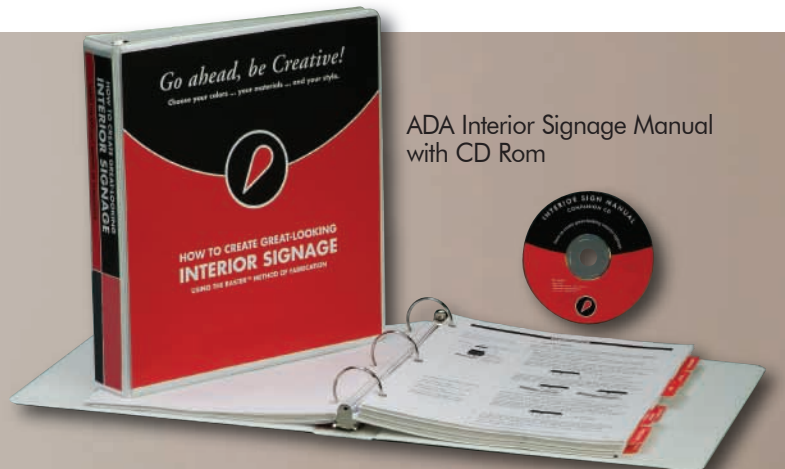
ADA Interior Signage Manual
with CD Rom

Braille Kit

Raster™ Pen

SETTING BRAILLE PROFILE CUTTERS TO ZERO

This procedure is a one-time operation performed before using a new Braille profile cutter. This is a best practice that will improve productivity. It will allow changing cutters without having to re-adjust the micrometer. The Braille Profile cutter is for cutting the raised shapes. The spindle spring tension should be adjusted to allow about 1/8" (3.18 mm) spring action.

1. Turn the micrometer gauge in the direction of increasing numbers until it stops
2. Back off 4 full turns to 0. Then back off an additional 10 ticks on the micrometer. Tighten the micrometer set screw.
3. Screw in the Braille Profiling tool (blue label) making sure cutter tip is not sticking out of the nose cone. You may need to adjust cutter offset with the yellow cutter wrench.
4. Using the arrows on control pendant, move spindle over flat table.
5. Press Z on the control pendant. (LCD reads Z=0.000 inch ⇕ to change)
6. Press the down arrow on control pendant until the nose cone touches the table (& there is a slight separation between the snap ring and spindle assembly).
7. Then loosen the black set screw on the brass collar of the cutter (using yellow wrench) and carefully lower the cutter until it just touches the material. Tighten set screw.
8. Press check ✔ on the control pendant (spindle raises up). Press X to cancel the XY jog mode.
9. Remove tool.
10. Dial the micrometer back (decreasing numbers) 1 full turn + 10 ticks to read 0.

SETTING BRAILLE DRILL CUTTERS TO ZERO

This procedure is a one-time operation performed before using a new Braille drill cutter. This is a best practice that will improve productivity. It will allow changing cutters without having to re-adjust the micrometer. The Braille drill cutter is for drilling holes for the Braille beads. The spindle spring tension should be adjusted to allow about 1/8" (3.18 mm) spring action.

1. Turn the micrometer gauge in the direction of increasing numbers until it stops
2. Back off 4 full turns to 0. Then back off an additional 18 ticks on the micrometer. Tighten the micrometer set screw.
3. Screw in the Braille drill tool (red label) making sure the cutter tip is not sticking out of the nose cone. You may need to adjust cutter offset with the yellow cutter wrench.
4. Using the arrows on control pendant, move spindle over flat table.
5. Press Z on the control pendant. (LCD reads Z=0.000 inch ⇕ to change)
6. Press the down arrow on control pendant until the nose cone touches the table and there is slight separation between the snap ring and spindle assembly.
7. Then loosen the black set screw on the brass collar of the cutter (using yellow wrench) and carefully lower the cutter until it just touches the material. Tighten set screw.
8. Press check ✔ on the control pendant (spindle raises up). Press X to cancel the XY jog mode.
9. Remove tool.
10. Dial the micrometer back (decreasing numbers) 1 full turn + 18 ticks to 0.

Recommended ADA sign materials: Gravotac, Gravotac Exterior, 2 Plex, Gravoglas 1 & 2

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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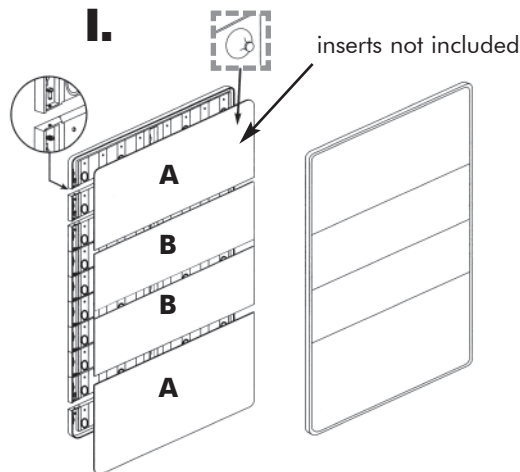FRAMES

MODULAR FRAME SYSTEM

Designed for interior signage. Frame construction provides flexibility for installations and sign inserts. Signs change over easily. Sign inserts fit securely into frames with a snap lock mechanism. Frames and inserts are tamper-resistant.
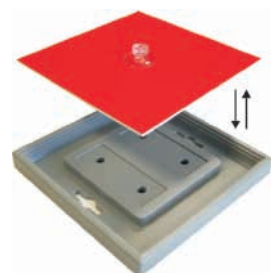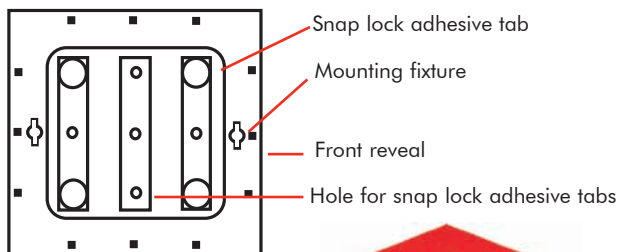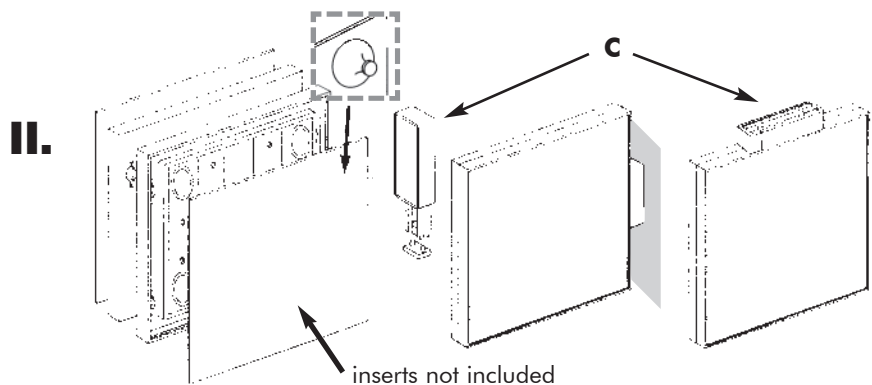
I. Modular frame directory

A. The header and base are 3" x 18", sold as a set. Insert panels are 2" x 18", sold separately.

B. Use as many insert panels as necessary to create the desired directory size. Snap locks and hardware included.

See chart at bottom of page 48 for part numbers.

II. Ceiling/wall mount

C. Designed to mount modular frames perpendicular to walls and ceilings. Instructions included.

I.

inserts not included

A
B
B
A

II.

C

inserts not included

Snap lock adhesive tab
Mounting fixture
Front reveal
Hole for snap lock adhesive tabs

**Suction cup
3/4" diameter - 36351**

**Snap lock with adhesive
Set of 12 - 36352**

When fabricating sign inserts, allow .005" to .010" for expansion and contraction of integrated materials.

Frame design
Features 2 reveals. The front reveal gives sign inserts a recessed look. The back reveal provides a projected appearance.

Snap lock mechanism
Positive locking snap locks fit securely into the frame hole. Each snap lock has a pressure-sensitive adhesive tab to hold insert in place. The exclusive hole placement and snap lock system provides design flexibility for sign inserts.

Mounting
Pre-grooved back reveal ensures tape concealment. Mounting

holes accommodate standard hardware for various types of wall installations.
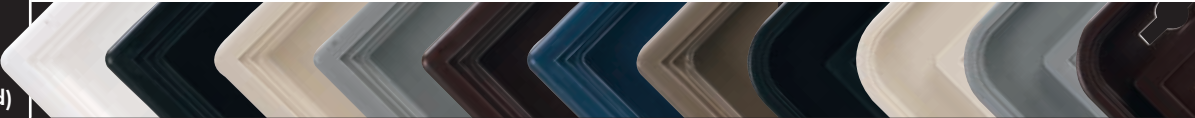
Frame format
All frames, directories and deskbars except white, navy, and taupe are available in round and square corners, and accommodate sign inserts which allow the maximum yields from our 24" x 48" standard sheet sign materials.

Custom modular frames
We offer white, black, almond, navy, taupe, gray and brown. Custom colors and sizes are available. Subject to minimum order requirements.

FRAME SYSTEM PART NUMBERS

Sizes	Insert (not included)	Square Corner Part Numbers							Round Corner Part Numbers			
		White	Black	Almond	Gray	Brown	Navy	Taupe	Black	Almond	Gray	Brown
2 x 4	1 59/64 x 3 59/64	34947	35017	35381	35120	35188			35000	35364	35103	35171
2 x 6	1 59/64 x 5 59/64	34948	35018	35382	35121	35189			35001	35365	35104	35172
2 x 8	1 59/64 x 7 59/64	34949	35019	35383	35122	35190	29675	29683	35002	35366	35105	35173
2 x 10 Desk Bar	1 59/64 x 9 59/64	34965	35035	35399	35139	35206						
2 x 10	1 59/64 x 9 59/64	34950	35020	35384	35123	35191	35322	35481	35003	35367	35106	35174
2 x 12	1 59/64 x 11 59/64	34952	35022	35386	35125	35193						
3 x 10	2 59/64 x 9 59/64	34953	35023	35387	35126	35194			35007	35371	35110	35178
4 x 4	3 59/64 x 3 59/64	34951	35021	35385	35124	35192	29671	29679	35004	35368	35107	35175
4 x 8	3 59/64 x 7 59/64	34954	35024	35388	35127	35195	29672	29680	35008	35372	35111	35179
4 x 10	3 59/64 x 9 59/64	34956	35026	35390	35129	35197			35010	35374	35113	35181
6 x 6	5 59/64 x 5 59/64	34955	35025	35389	35128	35196	29676	29684	35009	35373	35112	35180
6 x 8	5 59/64 x 7 59/64	34958	35028	35392	35131	35199	29677	29685	35012	35376	35115	35183
6 x 10	5 59/64 x 9 59/64	34959	35029	35393	35132	35200						
8 x 8	7 59/64 x 7 59/64	34960	35030	35394	35133	35201	29678	29686	35013	35377	35116	35184
8 1/2 x 11	8 59/64 x 10 59/64	34966	35036	35400	35140	35207						
6 x 12	5 59/64 x 11 59/64	34961	35031	35395	35134	35202			35014	35378	35117	35185
10 x 10	9 59/64 x 9 59/64	34946	35016	35380	35119	35187	29673	29681	34999	35363	35102	35170
12 x 12	11 59/64 x 11 59/64	34957	35027	35391	35130	35198	29674	29682	35011	35375	35114	35182

Each modular frame comes with 4 snap locks.
*Clear lens for 8 1/2" x 11" frame: 34819 (not included).
Suction cup - 3/4" diameter - 36351
Snap lock with adhesive - Set of 12 - 36352

	Sizes	Insert (not included)	Square Corner Part Numbers					Round Corner Part Numbers				Insert Panels Modulations
			White	Black	Almond	Gray	Brown	Black	Almond	Gray	Brown	
A	3 x 18	2 59/64 x 17 59/64	34963	35033	35397	35136	35204	35005	35369	35108	35176	**A - Header & base insert (top & bottom)**
B	2 x 18	2 x 17 59/64	34943	34997	35361	35100	35168	34997	35361	35100	35168	**B - Middle insert panels**
C	3"		34962	35032	35396	35135	35203	35032	35396	35135	35203	**C - Ceiling/wall mount**

Regularly stocked items have a lead time of 4 weeks. Special order items have a lead time of 4-6 weeks.
Recommend 1/16" inserts; round corners are 1/2" rounded corners.

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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FRAMES

ALUMINUM MODULAR
FRAME SYSTEM

Aluminum frames incorporate "picture frame technology" for incredible flexibility with unlimited sizing. Pre-cut lengths are stocked in many sizes for quick assembly.

Custom sizes are available at no extra charge. Perfect for indoor or outdoor signage. Available in 2 edge designs and 3 colors. Frame legs are sold in pairs, complete with corner attaching hardware. You will need 2 pairs to complete a frame. This unique construction method will allow you to offer countless size combinations to your customers, with minimal inventory. The 17 sizes available will allow you to create over 150 different sign frame dimensions.

For example if you want a 4" x 10" frame, simply purchase one of part number 34717 (4" pair of silver 100 series) and one of part number 34723 (10" pair of silver 100 series). You will receive everything you need to construct a silver 4" x 10" thin edge frame. For only $1 per frame, we will construct them for you.

SERIES 100

SERIES 200

TWO EDGE STYLES

SERIES 100
Features a thin edge with the sign insert recessed into the frame.

FEATURES:
• Custom sizing
• Lightweight and durable
• Frames can accept a variety of substrates; aluminum, plastics, etc.

SERIES 200
Features a 3/16" radius edge design that matches our high-impact styrene frames and a front reveal that allows the sign insert to have a slightly recessed appearance

• Sign inserts are easily changeable and can be modular
• Concealed mounting
• Easy installation with either screws, tape, or velcro
• Easy sign removal for building maintenance such as painting walls

SUPPORT BRACKETS
Support brackets are available for use with larger signs and when modular sign inserts are used. Support brackets are available in frame sizes.
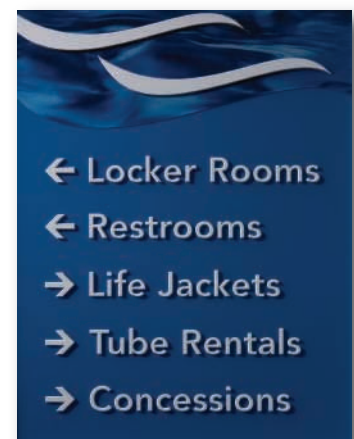
SNAP LOCK MECHANISM
Each snap lock has a pressure sensitive adhesive tab to hold the sign face securely in place within frame and provide tamper-resistant signage. Snap locks allow for easy sign face insertion, removal, and replacement.
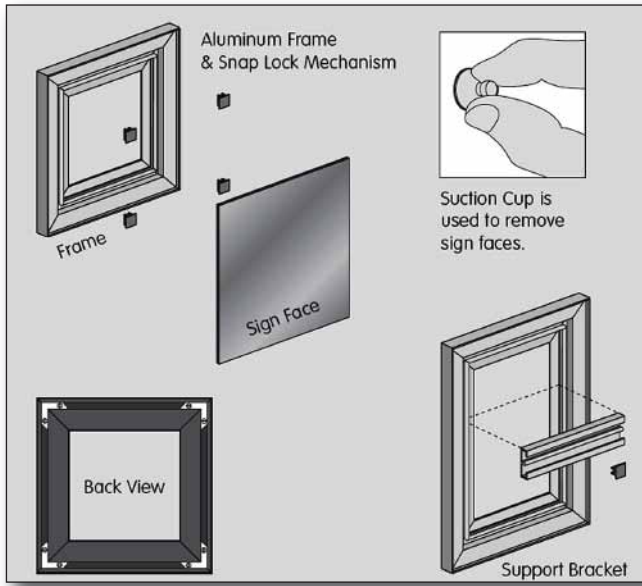
MOUNTING
Frame back is designed for tape concealment. Mounting holes can be added to accommodate standard hardware for various types of installations.

Filler panel

Sign face
(sits on edge
of the frame)

Series 100 aluminum frame
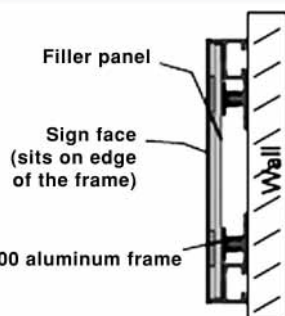
Use the series 100 Framing System for "the frameless look." Cut filler piece of material to fit inside the frame - adhere larger shape to filler piece to hide edges of frame. Use snap locks on filler piece to hold into frame.

← Locker Rooms
← Restrooms
→ Life Jackets
→ Tube Rentals
→ Concessions

ALUMINUM MODULAR FRAME SYSTEM

Aluminum Frame & Snap Lock Mechanism

Frame

Sign Face

Suction Cup is used to remove sign faces.

Back View

Support Bracket

Backview of frame with attaching hardware

When fabricating sign faces, allow .005 - .010" clearance for expansion and contraction of materials.

Edge size	Series 100			Series 200			Support
	Silver	Black	Gold	Silver	Black	Gold	(Silver only)
3"	34716	34750	34784	34733	34767	34801	—
4"	34717	34751	34785	34734	34768	34802	35069
5"	34718	34752	34786	34735	34769	34803	35070
6"	34719	34753	34787	34736	34770	34804	35071
7"	34720	34754	34788	34737	34771	34805	35072
8"	34721	34755	34789	34738	34772	34806	35073
8.5"	34732	34766	34800	34749	34783	34817	35084
9"	34722	34756	34790	34739	34773	34807	35074
10"	34723	34757	34791	34740	34774	34808	35075
11"	34724	34758	34792	34741	34775	34809	35076
12"	34725	34759	34793	34742	34776	34810	35077
15"	34726	34760	34794	34743	34777	34811	35078
18"	34727	34761	34795	34744	34778	34812	35079
24"	34728	34762	34796	34745	34779	34813	35080
30"	34729	34763	34797	34746	34780	34814	35081
36"	34730	34764	34798	34747	34781	34815	35082
48"	34731	34765	34799	34748	34782	34816	35083

Each part number above includes a pair of frame legs in the length mentioned and a pair of corner attaching hardware.
Therefore, two part numbers are needed to complete a frame. For only $1 per frame, we will construct them for you.

FOR ALUMINUM MODULAR FRAMES, ORDER SNAP LOCKS SEPARATELY.

Ready-made frames in the most popular sizes

Frame size	Series 100			Series 200		
	Silver	Black	Gold	Silver	Black	Gold
4" x 8"	34851	34857	34863	34854	34860	34866
6" x 6"	34852	34858	34864	34855	34861	34867
8" x 8"	34853	34859	34865	34856	34862	34868

Each part number above includes the complete frame fabricated in the overall dimensions listed above.
Recommend: 1/16" inserts; snap locks optional.

36353 Snap lock with adhesive (set of 12)   **36351** Suction cup (1-3/4" diameter)

Insert sizes The frame sizing is equivalent to our existing modular frame system, so the insert size should always be 5/64" less than the size of the frame leg purchased. For example, a 6" x 8" frame would need a 5-59/64" x 7-59/64" insert. This is because an insert should always have .005" - .010" clearance for expansion and contraction of materials.

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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FRAMES

SLATZ SIGN SYSTEMS

Custom Fabrication available see pages 10-14

Excellent for interior or exterior upscale signage
Our exclusive Engraver's Sign System combines silver and gold aluminum shapes and injection-molded plastics into a unique system of interchangeable components for single signs and directories. Some assembly required. Simply engrave the inserts, snap into place, and your interior sign system is ready for installation.

A. Mini-directory
Overall dimensions: 9 5/8" x 10 9/16"

	Gold	Silver
Part no.	**34845**	**34903**

B. Standard directory
Overall dimensions: 9" x 15 7/16"

	Gold	Silver
Part no.	**34846**	**34904**

C. Multi-column
Overall dimensions: 15 7/16" x 18 15/16"

	Gold	Silver
Part no.	**34847**	**34905**

D. Horizontal title sign
Overall dimensions: 10 1/2" x 18 15/16"

	Gold	Silver
Part no.	**34908**	**34909**

E. Deskplate
Overall dimensions: 1 5/8" x 9 1/8"

	Gold	Silver
Part no.	**34843**	**34901**

F. Deskbar
Overall dimensions: 1 1/4" x 10 1/2"

	Gold	Silver
Part no.	**34848**	**34906**

G. Wallplate
Overall dimensions: 1 5/8" x 9 1/8"

	Gold	Silver
Part no.	**34844**	**34902**

H. 2-Line wallplate
Overall dimensions: 2 5/16" x 9 1/8"

	Gold	Silver
Part no.	**34849**	**34907**

I. Engravers Slatz dealer kit
Engraved multi-column, standard and multi-directories, plus wallplates featuring our newest sign materials. Kit also includes two velcro boards for display.
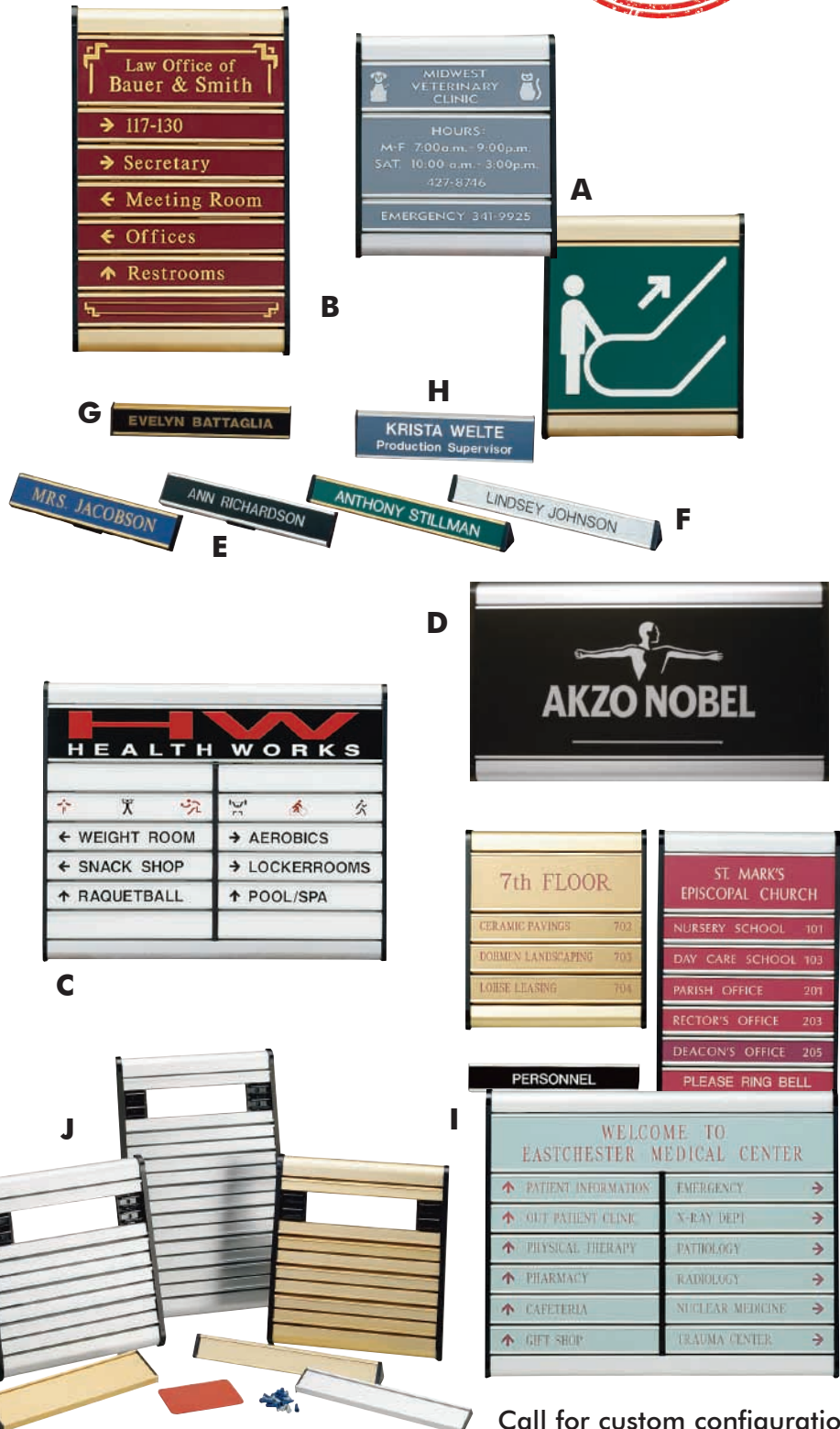
Part no.	**36319**

J. Engravers Slatz sign introductory kit
Includes standard silver directory, one each gold and silver mini-directory, deskbar, wallplate and deskplate

Part no.	**35485**

Recommendations
• 1/32" or 1/16" inserts
• Inserts should not be thicker than 1/16"

Call for custom configurations.

A. Mini-Directory

2 7/8" x 9"	
1 17/64" x 9"	
1 17/64" x 9"	
1 17/64" x 9"	

2 7/8" x 9"
2 1/16" x 9"
2 1/16" x 9"

2" x 9"
3 5/8" x 9"
1 1/2" x 9"

3 11/16" x 9"
3 11/16" x 9"

7 23/32" x 9"

B. Standard Directory

2 7/8" x 9"
1 17/64" x 9"
1 17/64" x 9"
1 17/64" x 9"
1 17/64" x 9"
1 17/64" x 9"
1 17/64" x 9"

4 1/2" x 9"
7 47/64" x 9"

9" x 12 19/32" Cut Cross Grain

9" x 12 19/32"

C. Multi-Column

2 7/8" x 18 11/32"	
1 17/64" x 9"	1 17/64" x 9"
1 17/64" x 9"	1 17/64" x 9"
1 17/64" x 9"	1 17/64" x 9"
1 17/64" x 9"	1 17/64" x 9"
1 17/64" x 9"	1 17/64" x 9"
1 17/64" x 9"	1 17/64" x 9"

2 7/8" x 18 11/32"	
4 1/2" x 9"	4 1/2" x 9"
4 1/2" x 9"	4 1/2" x 9"

2 7/8" x 18 11/32"	
9" x 9 11/32"	9" x 9 11/32"
Cut Cross Grain	Cut Cross Grain

D. Title Sign

7 3/4" x 18 11/32"

E. Deskplate

1 19/64" x 9"   1 19/64" x 3" - 1 19/64" x 6"   1 19/64" x 4 1/2" - 1 19/64" x 4/12"

F. Deskbar

1 19/64" x 9"   1 19/64" x 3" - 1 19/64" x 6"   1 19/64" x 4 1/2" - 1 19/64" x 4/12"

G. Wallplate

1 19/64" x 9"   1 19/64" x 3" - 1 19/64" x 6"   1 19/64" x 4 1/2" - 1 19/64" x 4/12"

H. 2-Line Wallplate

2 1/8" x 9"   2 1/8" x 3" - 2 1/8" x 6"   2 1/8" x 4 1/2" - 2 1/8" x 4 1/2"

Note: We will manufacture custom size directories to your specifications. Call for pricing.
Recommend: 1/32" or 1/16" inserts, no thicker than 1/16"

Components

We chose the sizes most often specified by architects and facility managers. All directories can be rearranged to accommodate multiple insert formats. Simply arrange insert plates to accommodate your specified format.

All directions and signs feature molded plastic multi-clips inserted into their tracks. Backplates and trimplates then snap-fit onto the multi-clip ensuring accurate spacing, design flexibility and tamper-resistance.
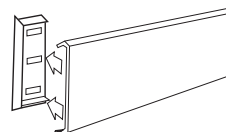
Removal key:
Individual insert plates of the directory may be removed from the front of a sign or directory without disturbing an entire group of insert plates.
Part no.
34870

End caps:
Used for wallplate and deskbar, the black cap snap-fits into the back of the backplate, covering the exposed edges and concealing the preformed mounting hole.
Part no.
49008

Insert plate:
Extruded aluminum which snap-fits into multi-clip system.

	Gold	Silver
9" Part no.	**34942**	**34869**
18" Part no.	**34850**	**34874**

Trackcaps:
Black mounted plastic caps that push into top and bottom of side tracks.

Part no. 34871

INDUSTRIAL SIGNS

Custom Fabrication available see pages 10-14

Ready-to-engrave OSHA Signs
Standard OSHA signal word signs are ready to engrave with your customer's specific message. Our seven signal word signs are silk-screened on 1/16" 2-ply Gravoply material. Recommended for interior use.
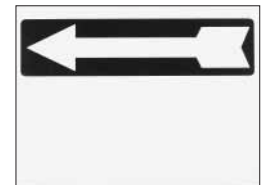
(Engrave Here) **A**

B

C

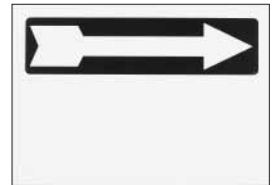|		
A. Danger	2 7/8" x 4"	**35641**
	7" x 10"	**35642	68972***
	10" x 14"	**35643**
B. Warning	2 7/8" x 4"	**35928**
	7" x 10"	**35929	68973***
	10 x 14"	**35930**
C. Caution	2 7/8" x 4"	**35825**
	7" x 10"	**35826	68974***
	10" x 14"	**35827**
D. Notice	7" x 10"	**35647	68975***
	10 x 14"	**35648**
E. Safety first	7" x 10"	**35904	68976***
	10" x 14"	**35905**
F. Arrow left	7" x 10"	**35751	68977***
	10 x 14"	**35752**
G. Arrow right	7" x 10"	**35749	68978***
	10 x 14"	**35750**

* Reference numbers for quantity of 10 or more.

Lockout tags
Durable Gravoply® 3-ply lockout tags with area on both sides for engraving important messages. Both tags measure 3 1/4" x 5 5/8".

H. Danger   **35859**
Sold in packages of 5.

J. Danger equipment lockout 35860
Sold each.

D

E

F

G

Front   Back **H**

Front   Back **J**

DID YOU KNOW?

Did you know you could use your Gravograph engraving machine to make custom ID plates or legend plates from a standard sheet of engraving plastic? You can even order the plastic sheet stock with an adhesive back already applied, so after engraving you can just peel-n-stick the plates. The GravoStyle™ software can even allow you to import a file with a list of names, and have them automatically updated to a matrix of plates. Best of all, engraving your own ID plates can cut the cost of a typical $1.00 plate down to pennies.
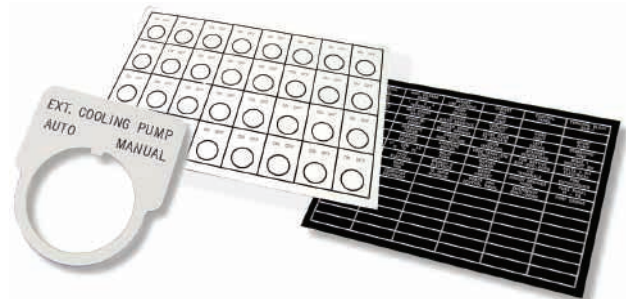
LEGEND PLATES

The safe, effective way to label push-buttons, selector switches or indicator lights. All Gravoply and Gravoply Ultra legend plates are non-conductive. We're able to manufacture custom legend plates based on your specifications. Please request a quotation.

Custom Fabrication available see pages 10-14

ROTARY   LASER

ROTARY   LASER

1 3/16" diameter holes. Fits full-size pilot lights and push buttons of all U.S. manufacturers, as well as many of the foreign-made oiltite units.

1 3/4" W x 2" H Universal

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35634	46020
Black/White	35738	46000
Red/White	35845	46011
Yellow/Black	45991	46031

1 3/4" W x 2" H Universal with lock tab

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35632	46018
Black/White	35736	45998
Red/White	35843	46009
Yellow/Black	45989	46029

7/8" diameter holes. (.875) Fits miniature button and pilot lights.

1 3/8" W x 1 5/8" H Universal

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35640	46025
Black/White	35745	46007
Red/White	35850	46016
Yellow/Black	45996	46027

1 7/32" diameter holes. Fits full-size pilot lights and push buttons of all U.S. manufacturers and many of the foreign-made oiltite units.

1 3/4" W x 2" H Universal

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35636	46023
Black/White	35740	46003
Red/White	35847	46014
Yellow/Black	45994	46032

1 3/4" W x 2" H Universal with lock tab

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35637	46022
Black/White	35741	46002
Red/White	35848	46013
Yellow/Black	45993	46034

1 3/4" W x 2" H Universal with lock tab

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35638	46021
Black/White	35742	46001
Red/White	35849	46012
Yellow/Black	45992	46033

1 3/4" W x 2" H Universal with lock tab

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35633	46019
Black/White	35737	45999
Red/White	35844	46010
Yellow/Black	45990	46030

1 13/16" W x 1 13/16" H Universal notched for lock ring

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35635	46017
Black/White	35739	45997
Red/White	35846	46008
Yellow/Black	45988	46028

1 3/4" W x 1 7/8" H Universal with lock tab

Color	Gravoply For rotary	Gravoply Ultra For laser
White/Black	35631	46024
Black/White	35735	46005
Red/White	35842	46015
Yellow/Black	45995	46035

11/16" diameter holes. Fits major lines of miniature lights – electrical and electronic.

1 3/8" W x 1 3/8" H Universal

Color	Gravoply For rotary	Gravoply Ultra For laser
Black/White	35743	46006
Yellow/Black	45987	45969

1 3/8" W x 1 3/8" H Universal

Color	Gravoply For rotary	Gravoply Ultra For laser
Yellow/Black	45986	45985

Anodized Aluminum Legend Plates 1 7/32" Universal
Manufactured to accommodate all standard oiltite lights and push buttons.

1 3/4" W x 2" H

Color	Part no.
Red Anodized	35864
Black Anodized	35778

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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BADGES

READY-MADE BADGES

Custom Fabrication available see pages 10-14

Meets Military Specifications

MILITARY BADGES

Plastic for rotary engraving

These badges have been created specifically to meet the requirements of each branch of the military, regulation colors and sizes. Each is made from 3/32" Gravoply I with feature clutch fasteners (included).

Color	Size	Branch	Part no.	Qty of 50 part no.
Satin Black/White	1"x3"	Army	35527	68955
Satin Black/White	3/4"x3"	Navy	19393	68956
Satin Air Force Blue/White	5/8"x3-3/16"	Air Force	35537	68957
Matte Black/White	5/8"x3"	Marine Corps	35521	68958
Textured Black/White	1"x3"	Military	35518	58959

Metal for rotary engraving

The premium and value United States Air Force dress uniform badges. With overall dimensions of 3/4" x 3", these badges are constructed of a .025" silver nickel-plated brass shell (premium) or silver nickel shell (value) that wraps around an attaching plastic insert, as specified by the US Air Force. The attaching hardware on the plastic insert is prong and clutch type. Each unit is sold with the adhesive-backed plastic back unattached to the shell to simplify the engraving process. Clutch hardware is included.

For this specific badge, the USAF requirements dictate the engraving be done with a .030" or .040" tip cutter. (We recommend a .030" tip cutter, sold below, engraved to a depth of .008" to .010".) The text must be all in capital letters, and be 1/4" in height. The font used must be standard block or SL513 Portuguese font. As specified by the USAF, the text on the badge is to be engraved and paint-filled with a specific blue engraving enamel, purchased separately (see below).

FRONT - 35604

SMITH

Premium USAF Name Tag

WILLIAMS

Value USAF Name Tag

FRONT - 66424

BACK

Description	Size	Part no.	Qty of 50 part no.
USAF Premium uniform name tag (brass)	3/4" x 3"	35604	68960*
USAF Value dress uniform name tag (nickle)	3/4" x 3"	66424	68961*
Brass cutter for 11/64" shank	.030" tip	34028	
Blue engravers enamel	1/2 pint	32814	
Paint-fill squegee tool		36226	

* Kit includes 34028, 32814, 36226

Plastic for laser engraving

Each of these 3/32" Gravoply Ultra badges also meet the requirements of the specified military branch, but are designed specifically for laser engraving. All badges feature prong and clutch attaching hardware.

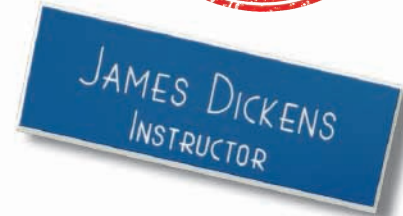| Color	Size	Branch	Part no.	Qty of 50 part no.
Satin Black/White	1"x3"	Army	35528	68964
Satin Black/White	3/4"x3"	Navy	35524	68965
Satin Air Force Blue/White	5/8"x3-3/16"	Air Force	35538	68966
Matte Black/White	5/8"x3"	Marine Corps	35522	68967

G. AVERY

READY-MADE BADGES

There's more than one way to buy a badge. Ready-made badges save you time and money. Custom badges keep all your customers satisfied, no matter how specialized their badge needs.

Classic 3/32" Gravoply badges (satin finish)
Gravoply badges feature square corners and beveled edges. Metal fasteners come attached. All fasteners are nickel-plated brass, so they will not tarnish and discolor fabrics.

Color and Size	Safety pin Part no.	Clutch Part no.	Qty of 50 part no.
Black/White			
5/8" x 2 1/2"	**35520**	–	
3/4" x 3"	**35523**	**19393**	
1" x 3"	**35526**	**35527**	
White/Black			
5/8" x 2 1/2"	**35487**	–	**68962***
3/4" x 3"	**35488**	**35489**	
1" x 3"	**35491**	**35492**	**68963***
Red/White			
5/8" x 2 1/2"	**35553**	–	
3/4" x 3"	**35554**	**35555**	
1" x 3"	**35557**	**35558**	
Azure Blue/White			
5/8" x 2 1/2"	**35540**	–	
3/4" x 3"	**35541**	**35542**	
1" x 3"	**35544**	**35545**	
White/Blue			
5/8" x 2 1/2"	**35502**	–	
3/4" x 3"	**35504**	–	
1" x 3"	**35506**	**35507**	
Apple Green/White			
3/4" x 3"	**35566**	–	
1" x 3"	**35568**	–	
White/Red			
3/4" x 3"	**35496**		
1" x 3"	**35498**		
Orange/White			
1" x 3"	**35576**		
Walnut/White			
1" x 3"	**35614**		
Silver Gray/Black			
1" x 3"	**35571**		

*68962 includes safety pin and 68963 includes clutch.

JAMES DICKENS
INSTRUCTOR

Susan Wilson

Frank Thompson
Manager

Thomas Malone

Alicia Bennett

Ms. Alexander

Safety pin back

Clutch back

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BADGES

READY-MADE BADGES

Custom Fabrication available see pages 10-14

Gravoply slip-on pocket badges
Designed to slip on over the top-edge of pockets and stay tightly in place. Bottom edge has rounded corners to protect clothing. Overall size: 3" x 2 1/2." Name plate area, 3" x 1 1/4." Not beveled.
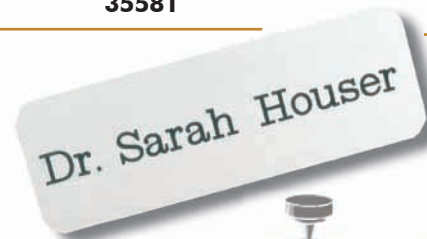
Color	Part no.
Black/white	35531
White/black	35494
Red/white	35560
White/red	35500
Azure blue/white	35548
White/azure blue	35509
Radiant gold/black	35581

ROTARY

Metallex badges
The look of metal, but not the cost. Metallex badges are 50% lighter than brass. 3/16" radius rounded corners.

Color and size	Safety pin Part no.	clutch Part no.
Glossy gold/black		
5/8" x 2 1/2"	35578	—
1" x 3"	35579	35580
Radiant gold/black		
1" x 3"	35582	—
Radiant silver/black		
5/8" x 2 1/2"	35597	—
1" x 3"	35598	—

ROTARY   LASER

Brass
Top quality .050" solid brass badges. Made in USA.

Color and finish		Safety pin Part no.	Clutch Part no.
Sandblast finish (do not use Gravoxide)			
Gold	1/2" x 2 3/8"	35593	35594
Silver	1/2" x 2 3/8"	—	35612
Glossy Gold (with cut corners)			
	1 3/16" x 2 3/8"	48299	

ROTARY

Classic oval
Satin gold 1 1/4" x 2"   **35587**

BROWN

Classic rectangle
(1/16" radius rounded corners)

Gold		Safety pin Part no.	Clutch Part no.
Glossy	3/8" x 2 1/4"	35588	35589
Glossy	1/2" x 2 3/8"	35590	35591 | 68968*
Glossy	5/8" x 2 1/2"	—	35592
Satin	1/2" x 2 3/8"	35585	35586 | 68969*
Silver			
Glossy	3/8" x 2 1/4"	—	35606
Satin	1/2" x 2 3/8"	35600	35601| 68971*

* Reference for orders of 50 or more. Includes clutch back.

METAL BADGE FRAMES AND MAGNETS

Deluxe metal badge frames
Similar to the above badge frames, but with slightly larger dimensions and upgraded finishes. The gold badges are actually 18K gold-plated, and the silver badges are plated with stainless steel. Since they both have a solid steel core, magnets adhere directly to the body of the badge, with no need for a pressure-sensitive steel plate. Sold with or without pin back fasteners. Both sizes offer round corners. Plain frames do not include fasteners, and can be used with the magnetic clips sold below. Insert material must be 1/32" thickness only.

3-line deluxe badge
Frame size: 1 5/8" x 2 15/16"
Insert size: 1 3/8" x 2 3/4"
1/8" radial corners

Plain gold (frame only)	**35617**
Pin back gold	**35624**
Plain silver (frame only)	**35619**
Pin back silver	**35625**

3-Line deluxe badge

2-Line deluxe badge

2-line deluxe badge
Frame size: 1 1/8" x 3 1/8"
Insert size: 29/32" x 2 29/32" x 1/32"
1/8" radial corners

Plain gold (frame only)	**35616**
Pin back gold	**35622**
Clutch back gold	**35623**
Plain silver (frame only)	**35618**
Pin back silver	**35628**
Clutch back sliver	**35629**

Clutch Back
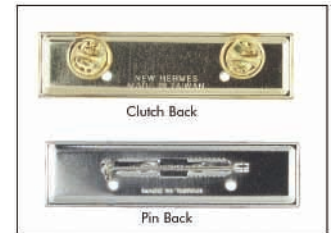
Pin Back

Metal badge frames
Engrave before mounting in frames. Materials not included; frame only. Material must be 1/32" thickness only.

Square corners:
Frame size: 11/16" x 2 11/16"
Insert size: 1/2" x 2 1/2" x 1/32"

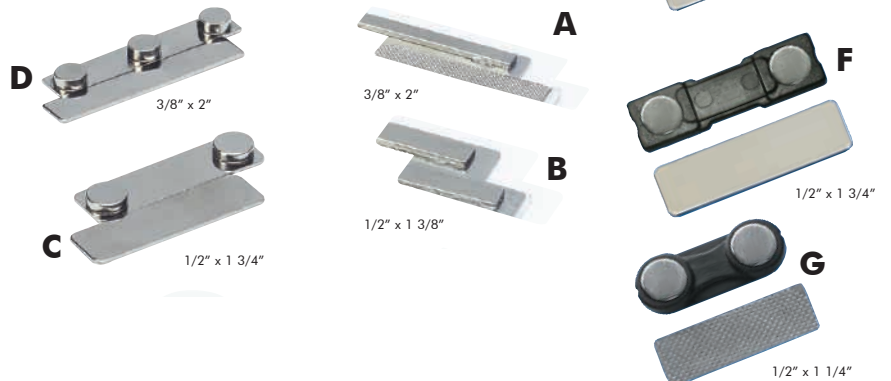|	
Goldtone w/pin back	**35620**
Silvertone w/pin back	**35626**
Goldtone w/clutch back	**35621**
Silvertone w/clutch back	**35627**

Magnetic closures
The following items are listed in ascending order of magnetic strength.

Description	Part no.
A. Single magnetic clip	**36119**
B. Double magnetic clip	**36118**
C. Double post magnetic clip	**36112**
D. Triple post magnetic clip	**36113**
E. Economy badge magnet	**36109**
F. Poly badge magnet	**36110**
G. Mini poly badge magnet	**36111**

All magnetic closures come with the pressure-senstive adhesvie backing.

D
3/8" x 2"

A
3/8" x 2"

C
1/2" x 1 3/4"

B
1/2" x 1 3/8"

E
1/2" x 1 3/4"

F
1/2" x 1 3/4"

G
1/2" x 1 1/4"

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BADGES

BADGE HARDWARE

Pressure-sensitive hardware

We offer our best-selling and new hardware with pressure-sensitive adhesive backing. Simply peel back the liner, and the adhesive bonds to the badge blank without chemical or heat fusing.

Description	Part no.
A. 1" safety pin (silver)	**36099**
B. 1 1/2" safety pin (silver)	**36104**
C. 2" ribbon bar	**35691**
D. 2 3/4" ribbon bar	**35689**
E. Brass clutches	**19351**
F. Badge tack	**35687**
G. Synthetic clutch	**35970**
H. Swivel metal bulldog clip	**36106**
I. 1 1/2" clear pin (steel) with ABS base	**36103**
J. 3/4" alligator clip swivel with ABS base (packs of 100)	**36108**
K. Drapery pin	**36102**
L. Super clip	**36117**
M. 1 1/2" white safety pin	**36091**
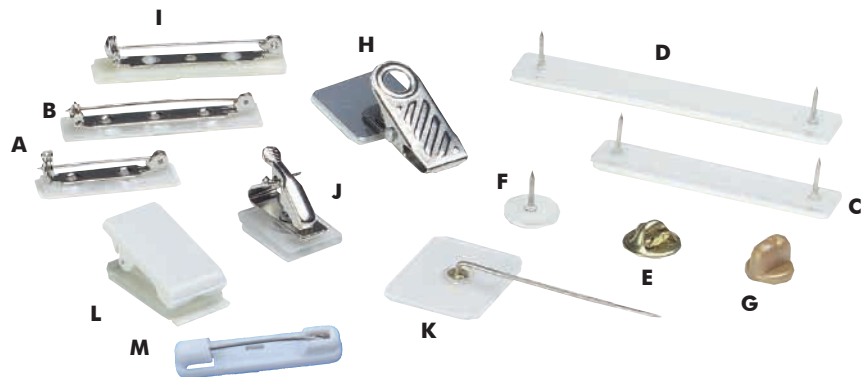
Classic badge hardware

Hardware is nickel-plated brass. Features clear plastic backing to make bonding quick and easy without GravoBond (see page 82 for adhesives). Anti-tarnish finish protects fabric from discoloration. Choose the material color, ply and thickness for fabricating badge blanks.

Description	Part no.
A. 1 1/2" white safety pin	**36090**
B. Brass safety pin import (pack of 100)	**19345**
C. Metal safety pin USA (not shown)	**36089**
D. Safety pin for Phenolic only with no plastic backing (not shown)	**36071**
E. 2" plastic ribbon bar	**35690**
F. 2 3/4" plastic ribbon bar (not shown)	**35688**
G. Brass clutches	**19351**
H. Tacks	**35686**
J. Synthetic clutch (pack of 100)	**35970**
K. Metal bulldog clip for badge blanks 1" or higher	**36092**
L. Swivel clip w/plastic back	**19346**
M. Snap clip w/plastic back	**30361**
N. Pocket clip on	**35692**
O. Clear acrylic badge holder	**35693**
P. 1 1/2" clear pin (steel) with ABS base (packs of 100)	**36088**

Badge Adapters

|		
P	Adapter w/pearlized snap and spring clip (packs of 100)	**36252**
Q.	Adapter w/spring clip	**36098**
R.	Badge adapter w/alligator clip	**36097**
S.	Spring clip with 3 1/2" Photo ID strap (packs of 100)	**36100**
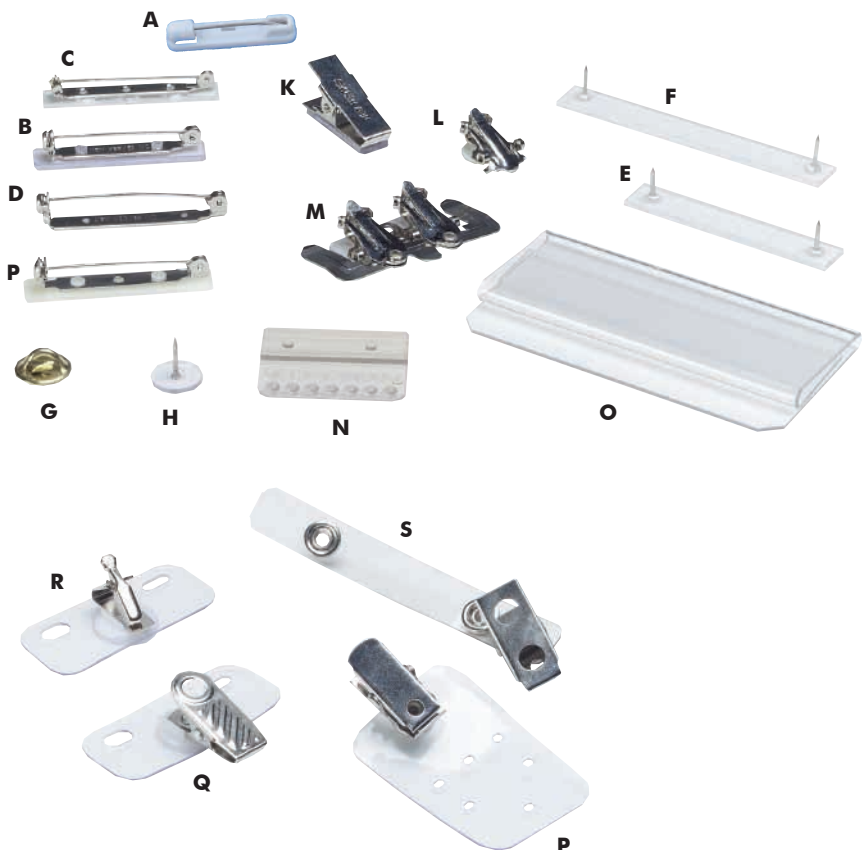
SIGN HOLDERS AND PLATE BASES

Item	Description 1	Description 2	Directory Size	Header	Insert	Extender	Part No.
1	Deluxe Directories	Header Plus One Insert Line	2 11/16" x 7"	1 1/4" x 7" x 1/16"	3/4" x 7" x 1/16"		34910
	Deluxe Directories	Header Plus Three Inserts	3 1/2" x 7"	1 1/4" x 7" x 1/16"	3/4" x 7" x 1/16"		34911
	Directory Extender				3/4" x 7" x 1/16"	5" x 7 3/16"	34913

Note: directory sizes are inside dimensions

Item	Description	Size	Part No.
2	Lawn and Garden Stakes	9" x 1/2"	34896
	Lawn and Garden Stakes	15" x 1"	34899

Item	Overall Frame Size	Strip Size: Top	Strip Size: Bottom	Color	Part No.
3	6 1/4" x 12 1/4"	11/16" x 6 1/4"	15/16" x 10 1/4"	Chrome	36120
	6 1/4" x 12 1/4"	11/16" x 6 1/4"	15/16" x 10 1/4"	Matte Black	35785
	6 1/4" x 12 1/4"	11/16" x 6 1/4"	15/16" x 10 1/4"	Gold	35971

Counter & Desk Bases

65905

65910
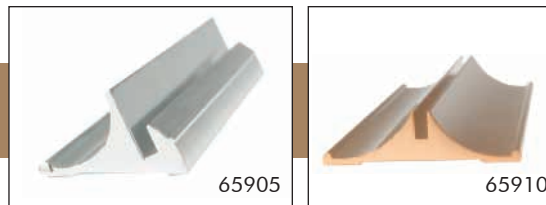
Description	Inserts	Size	Max Sign Height	Gold	Silver	JRS #
Counter Sign Holder: holds up to 8" tall	1/8"	2 1/2" x 10"	8"	34826	34881	55
Counterbase Plateholder Tall Back	1/16"	3/4" x 10"	2"	65908	65907	15
Counterbase Plateholder Tall Back	1/16"	3/4" x 8"	2"	65906	65905	15
Counterbase Plateholder Tall Back	1/16"	1 1/4" x 10"	6"	65912	65911	35
Counterbase Plateholder Tall Back	1/16"	1 1/4" 8"	6"	65910	65909	35

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61
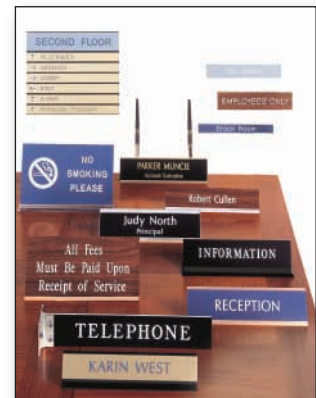
SIGN HOLDERS

Counter & Desk Bases (continued)

65955

65946

19480
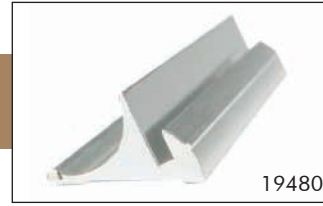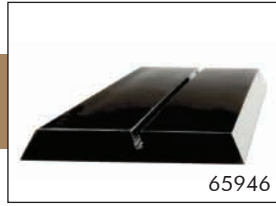
Description	Inserts	Size	Max Sign Height	Gold	Silver	Satin Silver	Black	Clear	JRS #
Desk Holder	1/8"	1/8" x 10"	12"	65953	65952				22
Desk Holder	1/8"	1/8" x 8"	12"	65951	65950				22
Desk Holder	3/32"	1 1/4" x 10"	6"	65961	65960				39
Desk Holder	3/32"	1 1/4" x 8"	6"	65959	65958				39
Deskplate Holder	1/16"	2" x 10"	6"				65945	65944	P100
Deskplate Holder	1/16"	2" x 8"	6"				65946	65943	P100
Plate Stand	1/16"	15/16" x 8"	3"	19474	19480				50
Plate Stand	1/16"	15/16" x 10"	3"	34825	34880				50

Desk Holders

65902

34995

30076

34842
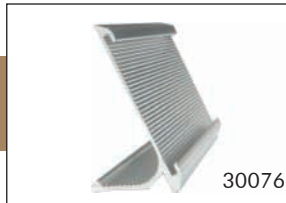
Description	Inserts	Size	Gold	Silver	Satin Silver	Black	Clear	JRS #
Desk Plate Holder Plain back	1/16"	1" x 6"	65898	65897				25
Desk Plate Holder Plain back	1/16"	1" x 8"	65900	65899				25
Desk Plate Holder Plain back	1/16"	2" x 10"	65904	65903				48
Desk Plate Holder Plain back	1/16"	2" x 8"	65902	65901				48
Pedestal Plate Holder	1/16"	1 1/2" x 9"	34823	34877		34995		31
Slimline Plate Holder	1/16"	1 x 7"	30073	30072				25
Standard Plate Holder	1/16"	2 x 8"	30077	30076	34882			59
Standard Plate Holder	1/16"	2 x 10"	34820	19479				59
Standard Plate Holder	1/8"	2 x 8"	34821	34875				11
Standard Plate Holder	1/8"	2 x 10"	34822	34876				11
The Executive	1/16"	2 x 8"	34842	34900				34

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SIGN HOLDERS AND PLATE BASES

34829

30074

34841

34840

6972
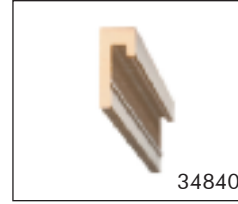
Multiple Sign Holders

65974

65985

65982

Description	Inserts	Size	Gold	Silver	JRS #
Two-Line Plate Holder	1/16"	Top: 2 x 9" Bottom: 1 1/2" x 9"	34824		23
Two-Sided Plate Holder	1/16"	1 1/4" x 6"	30075	30074	71
Multiple Insert Wall Plate Holder: Center Strip	1/16"	25"	34841	34895	76
Multiple Insert Wall Plate Holder: Frame Strip	1/16"	25"	34840	34894	75
Multiple Wall Bracket	1/16"	1" x 10"	65972		103
Multiple Wall Bracket	1/16"	1" x 10"	65976	65975	104
Multiple Wall Bracket	1/16"	1" x 8"	65974	65973	104
Multiple Wall Bracket	1/16"	1" x 10"	65986	65971	106
Multiple Wall Bracket - 3 slots of 1" x 10"	1/16"	3" x 10"		65985	106
Multiple Wall Bracket	1/16"	1 1/2" x 6"	65978	65977	112
Multiple Wall Bracket	1/16"	1 1/2" x 8"	65980	65979	112
Multiple Wall Bracket	1/16"	Top: 1" x 10" Bottom: 1 1/2" x 10"	65982	65981	107
Multiple Wall Bracket	1/16"	Top: 1" x 10" Bottom: 2" x 10"	65984	65983	115

Wall & Corridor Brackets
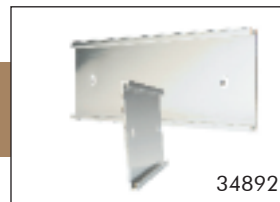
19485

34892

Description	Inserts	Size	Gold	Silver	JRS #
Rib Back Plate Holder	1/16"	2" x 8"	19476	19485	58
Rib Back Plate Holder	1/16"	2" x 10"	30069	30068	58
Rib Back Plate Holder	1/16"	2" x 26"	34837	34891	58
Plate Holder	1/8"	2" x 8"	34838	34892	94
Plate Holder	1/8"	2" x 10"	34839	34893	94

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SIGN HOLDERS

Wall & Corridor Brackets (continued)

34833
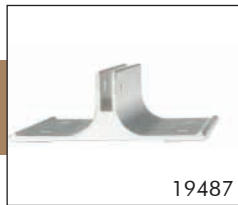
19487

65916

65929

Description	Inserts	Size	Gold	Silver	JRS #
Utility Wall Plate Holder	1/16"	3/4" x 26"	34829	34885	44
Utility Wall Plate Holder	1/16"	1" x 4"	19475	19482	56
Utility Wall Plate Holder	1/16"	1" x 6"	30067	30066	56
Utility Wall Plate Holder	1/16"	1" x 8"	34830	19483	56
Utility Wall Plate Holder	1/16"	1" x 10"	34831	34886	56
Utility Wall Plate Holder	1/16"	1" x 26"	34832	34887	56
Utility Wall Plate Holder	1/16"	1 1/2" x 8"	34833	34888	57
Utility Wall Plate Holder	1/16"	1 1/2" x 9"	34834	34889	57
Utility Wall Plate Holder	1/16"	1 1/2" x 10"	34835		57
Utility Wall Plate Holder	1/16"	1 1/2" x 26"	34836	34890	57
Wall Bracket	1/8"	2 1/2" x 2"	30070	19486	38
Wall Bracket	1/8"	2 1/2" x 3"	34827	34883	38
Wall Bracket	1/8"	2 1/2" x 4"	30071	19487	38
Wall Bracket	1/8"	2 1/2" x 5"	34828	34884	38
Wallplate Holder Plainback	1/16"	1" x 10"	65920	65919	28
Wallplate Holder Plainback	1/16"	1" x 4"	65914	65913	28
Wallplate Holder Plainback	1/16"	1" x 6"	65916	65915	28
Wallplate Holder Plainback	1/16"	1" x 8"	65918	65917	28
Wallplate Holder Plainback	1/16"	1 1/2" x 6"	65922	65921	29
Wallplate Holder Plainback	1/16"	1 1/2" x 8"	65924	65923	29
Wallplate Holder Plainback	1/16"	2" x 10"	65930	65929	36
Wallplate Holder Plainback	1/16"	2" x 12"	65932	65931	36
Wallplate Holder Plainback	1/16"	2" x 6"	65926	65925	36
Wallplate Holder Plainback	1/16"	2" x 8"	65928	65927	36
Wallplate Holder Plainback	1/16"	3" x 10"	65936	65935	37
Wallplate Holder Plainback	1/16"	3" x 12"	65938	65937	37
Wallplate Holder Plainback	1/16"	3" x 8"	65934	65933	37
Wallplate Holder Plainback	1/16"	4" x 10"	65940	65939	49
Wallplate Holder Plainback	1/16"	4" x 12"	65942	65941	49
Wallplate Plain Back	1/16"	1 5/8" x 8"	65963	65962	46
Wallplate Plain Back	1/16"	1 1/4" x 6	65965	65964	47
Wallplate Plain Back	1/16"	1 1/4" x 8"	65967	65966	47
Wallplate Plain Back	1/8"	3" x 12"	65970	65968	52

DOOR PLATES

STANDARD DOOR PLATES

A
READING ROOM

B
805

C
LIBRARY

D
LOUNGE
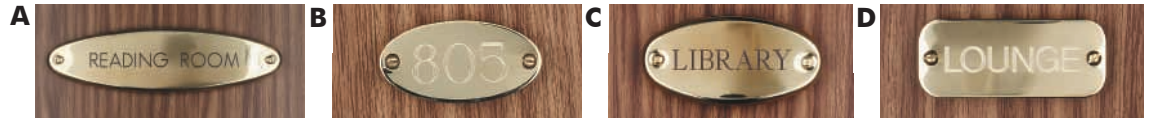
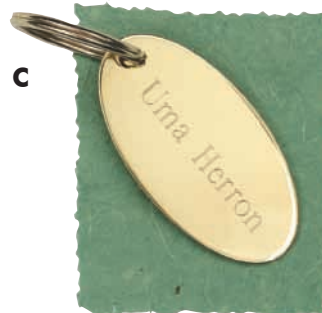|					
A	Brass door plate	Hand polished brass. For interior use.	Hardware included.	Oval 3 1/6" x 11" (imported)	**36017**
B	Brass door plate	Hand polished brass. For interior use only.	Hardware included. Lacquered.	Oval 1 3/8" x 2 9/16" (USA)	**35958**
C	Brass door plate	Hand polished brass. For interior or exterior use.	Hardware included. (imported)	Oval 2 5/8" x 5 5/16"	**36018**
D	Brass door plate		Hardware included. Lacquered (imported)	Rectangle 1 1/4" x 3"	**35957**

PREMIUM SOLID BRASS DOOR PLATES

A **B** **C** **D** **E**

F **G** **H** **I** **J**

K GOLD MEMBER
LASER

L **M**

N JAMISON'S
LASER

O SMITH'S
LASER

P The Jones'
LASER

Q THE CROCKS
LASER

R The Ralstons

S QUINCY FORDHAM

T J. P. Packard

U J.D. Fitzjames

V Jake Martin

W BRENDA DOWLING

X E. L. Quartermain

Y GEORGE AHAN 1988

Z Top Salesperson J.D. Hawkins

1 Miles Winslow

2 MRG

3 Haley Bennett

4 THURSTON KENNEDY International Sales Manager

5 Ken Hopkins

6 ANDRE & MIA 1998 Happy Anniversary

7 I Love You

8 Taylor Reilly

9 ST. THOMAS BASEBALL LEAGUE SPONSORS AWARD 1998

A	Rectangular with pearls	Oval 3 1/6" x 11" (imported)	22092
B	Rectangular with edge ribbon and cut corners	Oval 1 3/8" x 2 9/16" (USA)	22095
C	Oval with pearls	Oval 1 3/8" x 2 9/16" (USA)	22097
D	Rectanular, plain with cut corners	Oval 1 3/8" x 2 9/16" (USA)	21812
E	Fantasy, hammered	Oval 1 3/8" x 2 9/16" (USA)	22098
F	Oval, fantasy	Oval 1 3/8" x 2 9/16" (USA)	22090
G	Oval with twisted edging	Oval 1 3/8" x 2 9/16" (USA)	22089
H	Oval with edging ribbon	Oval 1 3/8" x 2 9/16" (USA)	22088
I	Oval plain	Oval 1 3/8" x 2 9/16" (USA)	22091
J	Rectangular plain	Oval 1 3/8" x 2 9/16" (USA)	22094
K	AlumaMARK Round Plate	Satin Brass 2" Diameter	45875
		Satin Silver 2" Diameter (not shown)	45886
L	Fantasy, plain small	Oval 2 5/8" x 5 5/16"	22093
M	Fantasy, plain large	Rectangle 1 1/4" x 3"	22096
N	AlumaMark Name Badge	Satin Silver 1 1/2" x 3"	45884
O	AlumaMark Name Badge	Satin Silver 1" x 3"	45874
		Satin Brass 1"x 3"	45885
P	AlumaMark Notched Ornamental Plate	Satin Brass 1" x 2 1/2"	45877
		Satin Silver 1" x 2 1/2" (not shown)	45883
Q	AlumaMark Notched Ornamental Plate	Satin Brass 7/8" x 2 1/2"	45876
		Satin Silver 7/8" x 2 1/2" (not shown)	45882
R	Classic Onamental Plates (include brads for mounting)	3/4" x 4-1/2"	35955
		Not shown:	
		3/8" x 2"	35951
		3/8" x 2-1/2"	35952
		1/2" x 3"	25953
		5/8" x 3-1/2"	25954

S	Brass Rectangle Plate	3/4" x 3"	36004
T	Brass Oval Plate with Faux Brads	3/4" x 1-7/8"	36014
U	Brass Oval Plate	1" x 3"	35936
V	Brass Plate	1/2" x 2" Fits Walnut Desk Organizer	36003
W	Sneaker Tag	9/16" x 1 9/16"	36009
Y	Brass Rectangle Plate with Faux Brads	"7/8" x 2-1/2"	36015
		Brass Rectangle Plate 13/16" x 1-7/8" (not shown)	36016
Z	Brass Rectangle Plate	9/16" x 2-1/4	36021
1	Brass Rectangle Plate	1" x 3"	35936
2	Silvertone Aluminum Oval Plate	13/16" x 2" imported	36137
3	Brass Plate	3/4" x 2" Fits Heart Jewelry Box	36000
4	Brass Plate	1" x 7-1/2"	35959
5	Matte Black Brass Plate	7/16" x 2"	35776
6	Round Brass Plate	2-11/16" diameter Fits Marble Coaster	35961
7	Brass Heart Plate	1-7/8" x 1-7/8"	35938
8	Antiqued Brass Rectangle Plate	1" x 2-1/2"	36005
9	Brass Plate for Standard Photo Plaque	1-13/16" x 4-3/4"	35938

All premium solid brass door plates include screws, except item **I**. (22095)

A

B

C

D

E

F

G

A	Golf Bag Key Chain Solid Pewter	7/8" x 2"	35962
B	Solid Brass Large Rectangle Key Tag	1-1/4" x 3"	35967
C	Solid Brass Oval Tag	1-3/8" x 2-1/2"	19504
D	Pre-Polished Brass Dog Bone Tag	1-1/16" x 1-5/8"	36059
E	Bone Tag Brass*	1-1/8" x 1-1/2"	-
	Stanless Steel		35983
	Blue Anodized		35989
	Red Anodized Aluminum		35995
E	Circle Tag Brass*	1-1/2" x 1-1/4"	35978
	Stanless Steel		35984
	Blue Anodized		35990
	Red Anodized Aluminum		35996
F	Heart Tag Brass*	1-1/2" x 1-1/4"	35981
	Stanless Steel		35987
	Blue Anodized		35993
	Red Anodized Aluminum		35999

* Comes in packs of 10
Personalize with Dedicace™, see page 112.

AWARD PLAQUES

The engraving material leader now has the best wood plaques in the industry. Choose from wood-grain or marble finish. All are created with laserable foils (not laminated paper) for the greatest quality and durability. The laserable wood grain plaques simulate a solid walnut plaque with a deep cherry stain, and are available with or without a solid black edge border. The marble finish plaques are constructed with a concave edge, and available in black, white, red or deep blue. Each of the marble finish plaques is available with or without an attractive gold trim border.

Thickness for all award plaques is 5/8".

Concave Edge **Bevel Edge**

Walnut Woodgrain Concave Edge   **Walnut Woodgrain Beveled Edge**
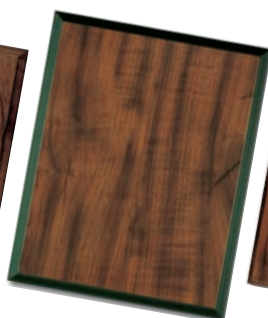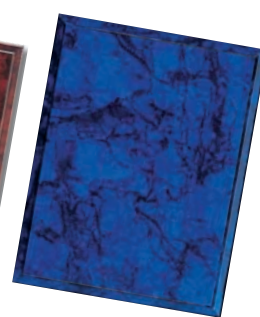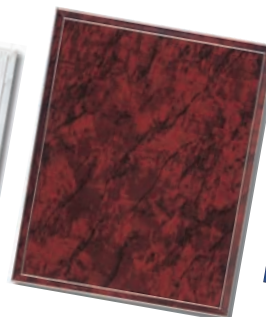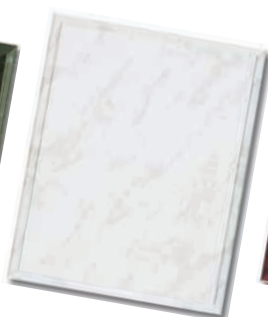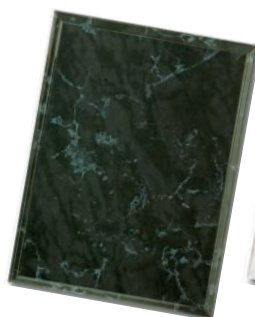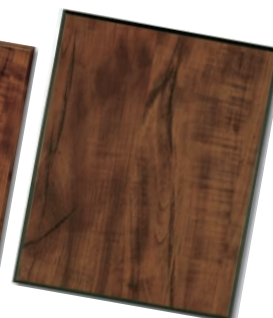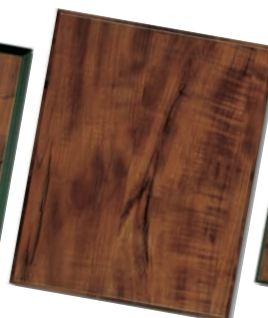
Marble With Concave Edge
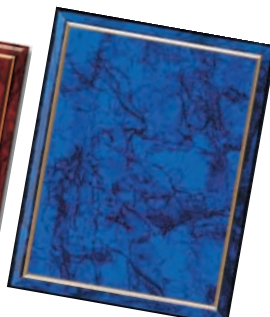
Marble With Gold And Concave Edge

Walnut w/ Concave Edge	Walnut w/ Black Concave Edge	Walnut w/ Bevel Edge	Walnut w/ Black Bevel Edge	Black Marble	White Marble	Red Marble	Deep Blue Marble	Size	Qty/Cs
36585	36593	36577	36561	36569	36641	36633	36625	4 1/4 x 6"	72
36586	36594	36578	36562	36570	36642	36634	36626	5 x 7"	50
36587	36595	36579	36563	36571	36643	36635	36627	6 x 8"	40
36588	36596	36580	36564	36572	36644	36636	36628	7 x 9"	30
36589	36597	36581	36565	36573	36645	36637	36629	8 x 10"	24
36590	36598	36582	36566	36574	36646	36638	36630	9 x 12"	16
36591	36599	36583	36567	36575	36647	36639	36631	10 1/2 x 13"	12
36592	36600	36584	36568	36576	36648	36640	36632	12 x 15"	12

Black Marble with Gold	White Marble with Gold	Red Marble with Gold	Deep Blue Marble with Gold	Size	Qty/Cs
36601	36613	36619	36607	6 x8"	40
36602	36614	36620	36608	7 x 9"	30
36603	36615	36621	36609	8 x 10"	24
36604	36616	36622	36610	9 x 12"	16
36605	36617	36623	36611	10 1/2 x 13"	12
36606	36618	36624	36612	12 x 15"	12

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ENGRAVABLES

THE MARBLES

LASER

Circular Marble Awards	Freestanding Design 5" diameter, 1" thick	
A	Clear	35717
B	Black Marble	35718
C	Blue Marble	35719
D	Green Marble	35720

Dome Marble Paperweights	Designed to lay flat. 4" diameter, 1" thick	
E	Blue Marble	35715
F	Green Marble	35716
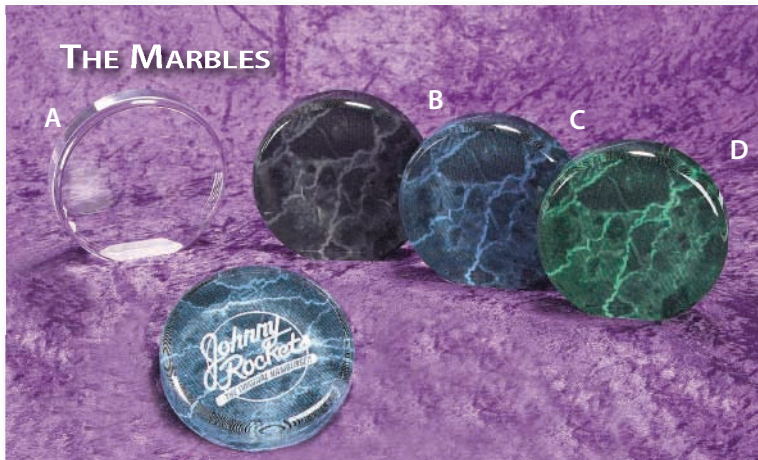
THE MARBLES
- Choose from 3 marble colors or clear
- Available as 4" dome paper weights, or 5" freestanding circular award
- Leave engraved images frosted or color-fill for extra impact

Jade Faceted Octagon Award	Designed to be freestanding. 1" thickness	
G	Small Jade Octagon	5 3/4" W x 5 3/4" H	35724
H	Large Jade Octagon	7 1/2" W x 7 1/2" H	35725
I	**Acrylic Prism Award**	3/4" thickness.	
	Small Prism	5" W x 8" H	35706
	Large Prism	6" W x 10" H	35707
J	Faceted Small Octagon Award	1" thickness	35704
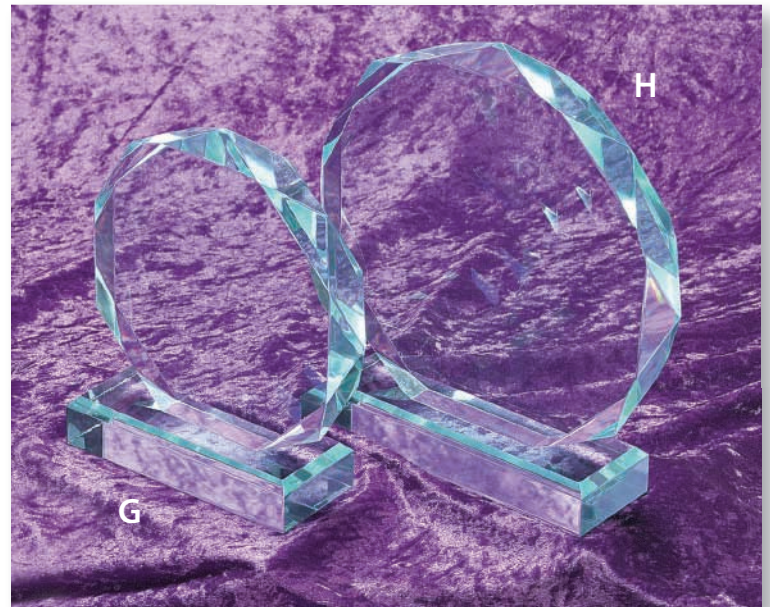
- Jade faceted octagon acrylic features 1" base

- Solid 1" base

- Extremely durable

A-B

C-D

E

F

A	8" Black Marble Easel		35812
B	10" Black Marble Easel		35813
C	Walnut Chairman Easel	Solid walnut with rich hand-rubbed finish.	35326
D	Walnut Chariman Easel	Solid walnut with rich hand-rubbed finish	35327

E	Baby Frame	Displays baby's name, weight, length, date and time of birth. Holds 3 1/2" x 5" photo.	36063
F	Glass Tankward w/ Pewter Plate	3 3/4" x 5 1/4"	36142
	Individual Replacement Plates for Tankards	1 5/8" x 2 5/8"	36008

G

H

J

I

G	Standard Money Clip	18 kt. goldplated brass. 3/4" x 2"	35327
H	Large Money Clip	18 kt. goldplated brass 1" x 2"	35942
I	Patterned Card Case	Brass case holds standard business cards.	35941
J	Matte Black Card Case	Matte black brass with gold color letter.	35789

K

N

K	Yellow/Black Diamond Key Tag	1 1/2" x 2 1/4"	35824
L	Blue/White Diamond Key Tag	1 1/2" x 2 1/4"	35799
M	Red/White Diamond Key Tag	1 1/2" x 2 1/4"	35839
N	Blue/White Teardrop Key Tag	1 3/4" x 2 5/8"	35801

L

M

Personalize with Dedicace™, see page 112.

LASER   ROTARY

A

B *Miller and Myers*

C *Go, Purple Pride!*

D

E

F

G *Lozier*

H

I

J

K

A — Roller Pen with Gold Trim
Brass Barrel
5.4″ l x 0.4″ w x 0.4″ d

Color	Item
Shiny Black	62775
Matte Black	62776
Silver	62777
Glossy Red	62778
Glossy Blue	62779
Metallic Green	62780

B — Ball Pen
Brass Barrel
5.4″ l x 0.4″ w x 0.3″ d

Color	Item
Shiny Black with Gold Trim	62768
Matte Black with Gold Trim	62729
Silver with Chrome Trim	62770
Red with Gold Trim	62771
Blue with Gold Trim	62772
Green with Gold Trim	62773

C — Ball Pen*
Brass Barrel
5.4″ l x 0.4″ w x 0.3″ d

Color	Item
Purple with Gold Trim	62774

D — Bamboo Pen*
Eco Friendly Bamboo
5.4″ l x 0.4″ wx 0.3″ d

Color	Item
Laser Only Pen with Chrome Trim	62834

E — Ball Pen*
Brass Barrel
5.4″ l x 0.6″ w x 0.4″ h

Color	Item
Shiny Black with Gold Trim	62792
Glossy Red with Gold Trim	62793
Glossy Blue with Gold Trim	62794
Silver with Chrome Trim	62795
Gold with Gold Trim	62796
Stainless Steel with Chrome Trim	62797

F — Matte Roller Pen*
Brass Barrel
5.4″ l x 0.6″ w x 0.5″ d

Color	Item
Black with Gold Trim	62814
Burgundy with Gold Trim	62815
Blue with Gold Trim	62816
Silver with Chrome Trim	62817

G — Ball Pen*
Brass Barrel
5.3″ l x 0.6″ w x 0.5″ d

Color	Item
Black Matte with Gold Trim	62809
Silver with Gold Trim	62812
Pearl White with Gold Trim	62813

H — Ball Pen with Gold Trim*
Brass Barrel
5.3″ l x 0.5″ w x 0.3″ h

Color	Item
Glossy Blue	62806
Shiny Black	62804

I — Mechanical Pencil with Gold Trim*
Brass Barrel
5.2″ l x 0.4″ w x 0.3″ h

Color	Item
Stainless Steel	62790
Matte Black	62791

J — Slim Pen
Brass Barrel
5.1″ l x 0.4″ w x 0.3″ h

Color	Item
Matte Black with Gold Trim	62788

K — Roller Pen*
Brass Barrel
5.6″ l x 0.6″ w x 0.5″ h

Color	Item
Shiny Black with Gold Trim	62798
Glossy Red with Gold Trim	62799
Glossy Blue with Gold Trim	62800
Silver with Chrome Trim	62801
Gold with Gold Trim	62802
Stainless Steel with Chrome Trim	62803

A

B

A — Executive Rosewood Color Gift Box*
With 1-2 slots
6.5″ l x 3″ w x 1.25″ h

Description	Item
Burgundy w/ 1 spot	62836
Burgundy w/ 2 spots	62837

B — Tin Gift Box
With 2 slots
7″ l x 2.1″ w x .6″ h

Description	Item
	62835

*Rotary & Laser Engravable.

Within the continental US call +1.800.843.7637

Outside the continental US call +1.770.623.0331

LICENSE FRAME PLASTIC INSERT MODELS

These license frames are designed to hold your engraved plastic inserts. All plastic frames are rotary engravable only.

Plated Zinc Frame

A

A. Chrome - 62410   *Black - 62414*   *Brass - 62409*

Top Center Recess Area: Up to 6-5/16" W x 3/4" H (159.85 mm W x 18.5 mm H)
Bottom Recess Area: Up to 10-5/16" W x 15/16" H (261.5 mm W x 23.5 mm H)

B. Chrome - 62411   *Black - 62415*

B

Top Center Recess Area: Up to 6" W x 7/8" H (151.9 mm W x 22.1 mm H)
Bottom Recess Area: Up to 7" W x 7/8" H (178.5 mm W x 22.1 mm H)

2-Ply Metallized Plated Plated Plastic Frame

C

C. Chrome - 62428
The suggested max. imprint area on the Top rim is 6-1/4" W x 5/8" H
The max. imprint area on the Bottom rim is 11" W x 7/8" H

D. Chrome - 62427

D

The suggested max. imprint area on the Top rim is 11" W x 3/8" H
max. imprint area on the Bottom rim is 6-1/4" W x 7/8" H

2-Ply White Plastic Frame

E

E. Glitter Black - 62430
Max. imprint area on the Top rim of 6-1/4" W x 1/2" H
The max. imprint area on the Bottom rim of 7-1/4" W x 7/8" H

2-Ply Plastic License Frames

F

F. Chrome with Blue Frame - 62420
62420, 62421, 62422, 62423 & 62424 frames have a max. imprint area on the top rim of 6-1/4" W x 1/2" H |Max. imprint area on the Bottom rim of 11" W x 7/8" H

62421   62424
62429   62431

Zinc Engravable License Frame Models

Chrome Plated and Black Coated Zinc Alloy License Frames are ready for Laser Engraving, Rotary Engraving, and Diamond Etching. Rotary Engraving will require an Epoxy color fill. All metal automotive accessories can be CO_2 or YAG laser engraved by using TherMark coating or paste.

G

G. Chrome - 62481
Max. imprint area on the Top rim of 11" W x 3/8" H | Max. imprint area on the Bottom rim of 11" W x 7/8" H
H. Black - 62482

H

Max. imprint area on the Top rim of 6" W x 7/8" H | Max. imprint area on the Bottom rim of 11" W x 7/8" H

Brass Engraving License Frame Models

I

I. Black Nickel - 62466
Max. imprint area on the Top rim of 6" W x 7/8" H | Max. imprint area on the Bottom rim of 11" W x 7/8" H
J. Chrome Plated Solid Brass - 62450

J

Max. imprint area on the Top rim of 6" W x 3/8" H | Max. imprint area on the Bottom rim of 11" W x 7/8" H

METAL MOTORCYCLE LICENSE FRAMES FOR PLASTIC INSERTS

K

K. Chrome - 62487   *Black - 62490*
Dimensions: 7-1/2" W x 5" H | Top Center Recess Area: 6-3/8" W x 0-3/8" H | Bottom Recess Area: 6-3/8"

L

L. Black - 62487   Dimensions: 7-3/16" W x 5" H
Top Center Max. imprint area: 6-1/2" W x 3/8" H |Bottom Max. imprint area: 6-1/2" W x 1" H

M. Chrome - 62487   Dimensions: 7-7/16" W x 4-11/16" H

M

Top Center Max. imprint area: 6-3/4" W x 3/16" H |Bottom Max. imprint area: 6-3/4" W x 1/2" H

Metal Motorcycle License Frames

N

N. Chrome Plated Solid Brass - 62493
Top Center Max. imprint area: 6-1/2" W x 1/2" H |Bottom Max. imprint area: 6-1/2" W x 1" H

Personalize with Dedicace™, see page 112.

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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ENGRAVABLES

Metal Motorcycle License Frames
Dimensions: 7-1/2" W x 5-1/16" H

N

N. Chrome Plated Solid Brass - 62493
Top Center Max. imprint area: 6-1/2" W x 1/2" H |Bottom Max. imprint area: 6-1/2" W x 1" H

Hitch Covers & Front Plates
Trailer Hitch Covers (with either a 2" or a mini 1-1/4" receiver post) & Front Plates are ready for Laser Engraving, Rotary Engraving and Diamond Etching. Rotary Engraving will require an Epoxy color fill.

O　**P**

O. Chrome Plated Oval Emblem & Stainless Steel - 62587
2" Receiver Post Oval Emblem Size: 6" W x 3-1/4" H
P. Chrome Plated Rectangular Emblem & Stainless Steel - 62589
2" Receiver Post. Rectangular Emblem Size: 6" W x 3-1/4" H

Metal Motorcycle License Frames
Dimensions: 7-1/2" W x 5-1/16" H

Q

Q. Stainless Steel Front Plate - 62591
Mirror Polished 800 Stainless Steel Front Plate (12"W x 6"H) | Suitable for Laser Engraving or Diamond Etching.

KEYCHAIN MODELS
All Keychains are Metal or are combined with Leather. A select few have Swarovski® Crystals or light up features. Keychains can be rotary diamond, CO_2 laser (with TherMark) or YAG laser engraved.

A　**B**　**C**　**D**　**E**　**F**

4 tools: knive, bottle opener, flat & Phillips screw drivers

G　**H**　**I**　**J**　**K**　**L**

Flip Open Picture Frame with Mirror

M　**N**　**O**　**P**　**Q**　**R**

S　**T**　**U**　**V**　**W**
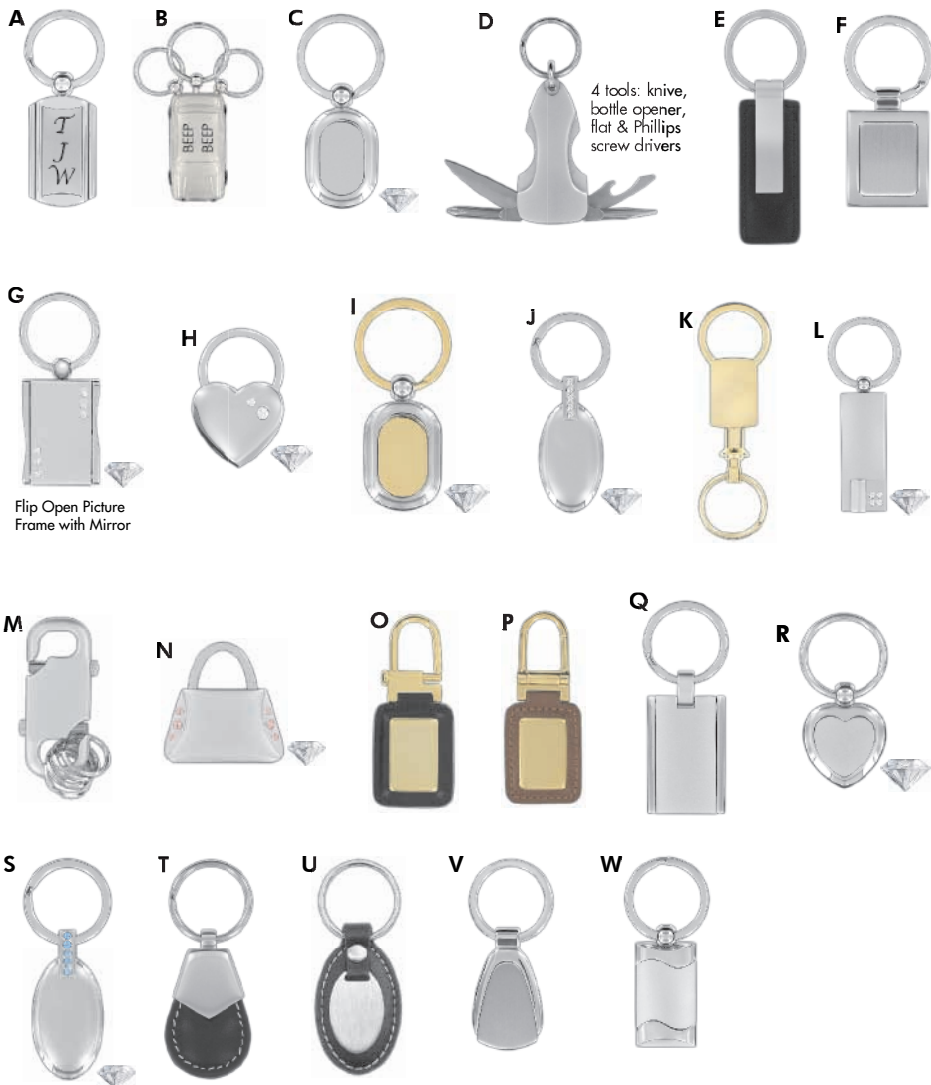
A	1" W x 3-1/8" H	62509
B	1-3/4" W x 2-5/8"H	62497
C	1-1/8" W x 3-1/4" H	62572
D	1-1/8" W x 3-1/2" H	62508
E	1" W x 3-5/8" H	62559
F	1-3/8" W x 3-3/8" H	62567
G	1-3/8" W x 3-3/8" H	62517
H	1-3/8" W x 2" H	62518
62523	62519　62520　62521	62522
I	1-1/8" W x 3-1/4" H	62571
J	1" W x 3-3/8" H	62524
K	3/4" W x 4" H	62554
		62555
L	78" W x 3-1/2" H	62500
M	1" W x 2-1/2" H	62551
		62552
N	1-5/8" W x 1-5/8" H	62499
		62498
O	1-1/2" W x 3-5/8" H	62501
		62502
P	1-1/2" W x 3-5/8" H	62503
		62504
Q	1-1/14" W x 3-3/8" H	62528
R	1" W x 2-1/4" H	62529
S	1"W x 3-3/8"H	62526
T	1-1/4" W x 3" H	62536
		62537
U	1-3/8" W x 3-3/8" H	62586
V	1" W x 3" H	62566
W	1" W x 3-1/8" H	62534

◇ Swarovski® is a registered Trademark of the Swarovski company.

Within the continental US call +1.800.843.7637　Outside the continental US call +1.770.623.0331

A. Double Heart Holiday Ornament
2-5/8" x 2-1/4"   46365

B. Bronze Boy in Prayer
1-1/2" x 3-1/4" 35892

C. Bronze Girl in Prayer
1-1/2" x 3-1/4" 35893

D. Holiday Scene Enamel
2-11/16" x 3-1/2" 36024

E. Enamel Snowman
3-1/4" x 3-1/4" 35891

F. Bronze Sculptured Fireplace
3-1/4" x 2-3/4" 35877

G. Season's Greetings Enamel
3" x 3-1/4" 35871

H. Christmas Ball Enamel
2-7/8" x 3-7/16" 35869

I. Angel Holiday Ornament
2-1/8" x 3"   46367

J. Dove Holiday Ornament
2-3/8" x 3-1/2"   46366

K. Glass Star Ornament
3-1/2" x 3-1/2" 35887

L. Dancing Bear Holiday Ornament
2-3/16" x 3-1/8" 46363

M. Moose Scene with Ribbon
2-3/8" x 2-5/8" 62947

N. Goldtone Snowflake
2-11/16" x 3-1/4" 62680

O. Candy Cane Enamel
1-7/8" x 3-1/2" 35868

P. Angel with Ribbon & Engravable Heart Charm
1-3/4" x 3-1/4" x 1-1/2" depth 62948

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LASERABLE WOOD

Brass Plates

51094	Small brass plate	1½"w x ½"H
51093	Medium brass plate	3"w x 1"H
51092	Large brass plate	4½"w x 1½"H

LASER DETAILS:
Speed: 65%
Power: 50%
Notes: May need to tape down when engraving
☐ settings are based on a 30 watt CO2 laser

656200 100578
656200 100585
656200 100592

Coach Williams
Great Times - Great Friends
Congratulations
2008

With love and appreciation
for a faithful ministry.
FELLOWSHIP BAPTIST CHURCH
2008

Keychains

51116	Gold keychain
51210	Silver keychain

LASER DETAILS:
Jig: ⅛ corner jig
Speed: 50%   Power: 100%
☐ settings are based on a 30 watt CO2 laser

656200 100042
656200 100028
656200 100059

Keychains

51207	Rectangle keychain	51206	Heart keychain
51292	Foam jig	51291	Foam jig
51208	Square keychain		
51293	Foam jig		

LASER DETAILS:
Jig: ½ corner jig - foam
Speed: 50%   Power: 100%
☐ speed and power are based 30 watt CO2 laser

Lisa Miller

Kellie Joy

Kellie Joy

656200 053164
656200 053157
656200 053171

Back
Class of
2009

Back

Jessica DAWSON

Megan PERRY

656200 101254
656200 101278
656200 078723
656200 078754

Keychains

63036	Circle
63090	Foam jig for circle
63037	Square
63091	Foam jig for square

LASER DETAILS:
Jig: ½ corner jig - foam
Speed: 35%
Power: 100%
☐ speed and power are based 30 watt CO2 laser

Keychains

62972	Brown	
62973	Green	
62974	Blue	
63062	Jig for circles	

LASER DETAILS:
Jig: ½ corner jig - foam jig
Speed: 50%
Power: 50%
☐ settings are based on a 30 watt CO_2 laser

Purse Holders

			62975	Circle, brown
62970	Heart, red		62976	Circle, green
62971	Heart, blue		62977	Circle, black
63061	Jig for heart		63063	Jig for circle

LASER DETAILS:
Jig: ½ corner jig - foam jig
Speed: 50%   Power: 50%
☐ settings are based on a 30 watt CO_2 laser

Crystal Gifts

62992	Diamond keychain
62994	Diamond ornament
63065	Jig for diamond shaped keychain and ornament

LASER DETAILS:
Jig: ½ corner jig - foam jig for diamond shape, ¾ corner jig (no foam jig) for lightup style put paper under to ensure the crystal doesn't scratch
Speed: 50%   Power: 100%
☐ settings are based on a 30 watt CO_2 laser

Ornaments

62999	Circle ornament
63068	Foam jig
63000	Heart ornament
63069	Foam jig

LASER DETAILS:
Jig: ½ corner jig - foam jig
Speed: 50%   Power: 100%
☐ settings are based on a 30 watt CO_2 laser

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LASERABLE WOOD

Ornaments

62988	Children Alder
62991	Manger scene
62989	Bethlehem
62990	Sheperd and sheep

LASER DETAILS:
Jig: ¼ corner jig - GFL foam
Speed: 50%   Power: 100%
▢ speed and power are based 30 watt CO2 laser

656200 074268

656200 074251

THE BLAKEMAN FAMILY
Adam, Lucy & Allison

TO CHRISTOPHER
Love, Mom & Dad

656200 066164

656200 074244

Wooden Pens

51136	Rosewood pen
51260	Wood jig

LASER DETAILS:
Jig: Wood
Speed: 50%
Power: 100%
▢ speed and power are based 30 watt CO2 laser

656200 053133

656200 100851

656200 100868

656200 100875

656200 072707

656200 100998

656200 101001

656200 101018

656200 101025

Black Pens

51104	Black and brass pens
51248	Wood jig

LASER DETAILS:
Jig: Wood
Speed: 40%
Power: 100%
Notes: 2 passes
▢ speed and power are based 30 watt CO2 laser

Nathaniel Smith   Central Middle School

Paula D. Miller

5th Year Anniversary   Lucas Weaver

Happy Mother's Day   Laurie Freeman

Caleb Lawson

Wooden Pens

51100	Maple pen
51135	Rosewood pen
51226	Rosewood/maple pen
51259	Wood jig

LASER DETAILS:
Jig: Wood
Speed: 50%
Power: 100%
Notes: Do not shoe polish ZEMS or ZSWR
▢ speed and power are based 30 watt CO2 laser

656200 100196

656200 100202

656200 100219

656200 100226

656200 100240

Thank you for everything   Susan Enns

Stewart G. Martin

Happy 12th Birthday   Sarah Blauth

Springfield Medical Center Physical Therapy   S.B. Williams, MD

Nancy Halpert

WORLD'S GREATEST Dad
DAVID AUMBACH

In Honor of Our Pastor
JOHN H. PARKER
From our First Baptist Congregation

"I know the plans I have for you," declares the LORD, "plans to prosper you and not to harm you..." Jer. 29:11
DAVID AUMBACH
Class of 2008

656200 101063

656200 101056

656200 101070

JOHN A. BROCK
Blessed is the man who trusts in the Lord.

Pen Holder

51168   Balancing magnetic pen holder

LASER DETAILS:
Jig: ½ corner jig
Speed: 50%
Power: 100%
☐ speed and power are based 30 watt CO2 laser

Pen Box

51138   Pen box
6¼"W x 1¾"H
Rosewood rollerball pen included

LASER DETAILS:
Jig: ¾ corner jig
Speed: 50%   Power: 100%
Notes: Pen personalization options pg 10
☐ settings are based on a 30 watt CO2 laser

"I know the plans I have for you," declares the Lord, "plans to prosper you and not to harm you, plans to give you hope and a future." Jeremiah 29:11

656200 101094

Brianna Shelton
Class of 2008

656200 051528

Handbag Mirrors

51145   Handbag Mirror
2¼"W x 3"H

LASER DETAILS:
Jig: ¼ corner jig
Speed: 50%
Power: 100%
☐ settings are based on a 30 watt CO2 laser

Joy Marie

656200 067192

Photo Album

63028   Rosewood photo album
HOLDS 100 4X6 PHOTOS
5¼"W x 6½"H x 1¾"D

51140   Walnut photo album
HOLDS 200 4X6 PHOTOS
7¾"W x 9"H x 2¼"D

LASER DETAILS:
Jig: ¾ corner jig
Speed: 50%   Power: 100%
Notes: Shoe polish, Leave styrofoam in between the cover and pages when lasering
☐ settings are based on a 30 watt CO2 laser

Vacation Memories
THE SCOTTS

GRANDPATED
We all love you Grandpa Ted.
We're happy that you had us, and we're happy to have you.

656200 078655

656200 051832

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LASERABLE WOOD

Traditional Knives

51146	2½" blade
51263	Foam jig

LASER DETAILS:
Jig: ¾ corner jig - foam
Speed: 50%   Power: 100%
Notes: Shoe Polish
⬚ settings are based on a 30 watt CO2 laser

Pocket Knives

63051	Pakkawood knife 2" blades
63083	Foam jig

LASER DETAILS:
Jig: ¾ corner jig - foam
Speed: 50%   Power: 100%
Notes: Shoe Polish
⬚ settings are based on a 30 watt CO2 laser
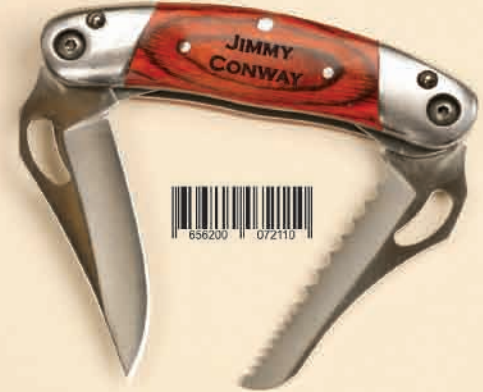
Knives & Money Clips

51153	Belt clip knife 2¼" blade
51270	Foam jig
51154	Burl Handle knife 2", 2¼", blades
51271	Foam jig

LASER DETAILS:
Jig: ¾ corner jig
Speed: 50%
Power: 100%
Notes: Shoe Polish
Rosewood Knives
⬚ settings are based on a 30 watt CO2 laser

Knives

51152	Large 2", 2¾", 2¼" blade
63081	Foam jig
51124	Mini pocket knife 2" blade
63077	Foam jig

LASER DETAILS:
Jig: ½ corner jig - foam
Speed: 50%   Power: 100%
Notes: Shoe Polish Rosewood Knives
⬚ settings are based on a 30 watt CO2 laser

Photo Frames

51077 Photo frame
HOLDS 4X6 PHOTO
8¾"w x 6¾"H

51078 Photo frame
HOLDS 4X6 PHOTO
8¾"w x 6¾"H

51079 Photo frame
HOLDS 4X6 PHOTO
8¾"w x 6¾"H

LASER DETAILS:
Jig: ¾ corner jig
Speed: 50%   Power:100%
settings are based on a 30 watt CO2 laser

Candle Holder

62984 Crystal candle holder
2"wx3¼"H

LASER DETAILS:
Jig: ¾ corner jig
Speed: 50%   Power: 100%
Notes: put paper under clock to ensure it doesn't scratch
settings are based on a 30 watt CO2 laser

CONFIGURE SCANNER

Scan the barcodes on the right from top to bottom to setup scanner

Enter Configuration Mode

Exit Configuration Mode

Barcode Scanner

63059 Metrologic USB barcode scanner

This scanner may be used to quickly, easily, and reliably open laser files from this catalog. The laser operator only needs to scan the product barcode in the catalog and the correct file will be opened. The file contains details on required jig, speed, power, and lasering suggestions.

Scan the barcodes (on this page) from top to bottom to configure scanner.

The scanner will only open files that are in the default directory (the directory that comes up when you pick File, Open).

To prevent this directory from being accidentally changed (particularly in a multi-user environment), we suggest you locate your Gravostyle.ini file (usually in C:\GravoStyle5200\Config), right click, choose Properties, and select the Read-only property.

The barcode scanner will not function at all if Caps-Lock is on, so be sure to check this if you are having trouble.

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LASERABLE WOOD

Laser Bed Alignment

63085 Laser Alignment Plate

Laser Bed Alignment

1. Place the alignment plate in the top left corner of the laser bed

2. Run this file

3. Measure the offset between the box you lasered, and the box that was already lasered.

4. Turn the laser off, then back on.

5. As soon as the word "Gravograph" appears on the display, press and hold the X button.

6. Select the option "ReAlign Machine"

7. Select the option (ReAlign X Y)

8. Increase or decrease the X and Y values by the offset you measured

9. Press the check button, it will beep if the new values are accepted.

Troubleshooting:

If your machine will not allow the offset you need to enter, you'll need to reset your fence.

In the package of tools that arrived with the machine, there will be an allen wrench that will fit the screws along the rulers on the X and Y axis.

Move the rulers as far in as possible. Run your red light along each axis to ensure the rulers are secured straight.
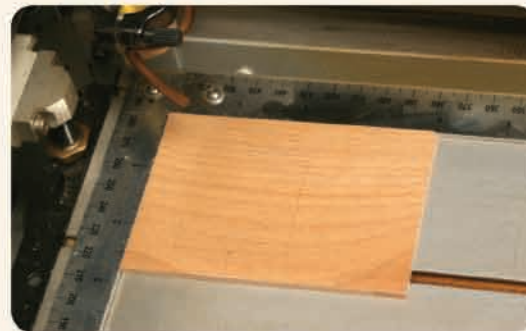
Corner Jigs

63066 ¼, ½, ¾ jigs
These jigs are used (as shown in the photo below) when engraving the product.

Font Plaque

63017 Small plaque
5½"w x 7¼"H

This plaque can be personalized with the fonts of your choice to show the font options available for personalization.

LASER DETAILS:

Jig: ¾ corner jig
Speed: 30% Power: 100%
Notes: Shoe polish
☐ settings are based on a 30 watt CO2 laser

FONT OPTIONS

ALS Script
Calligraphy FLF
Halcyon
Colton Small Caps
HL Handwriting
Parchment MF
Scriptina
Times New Roman
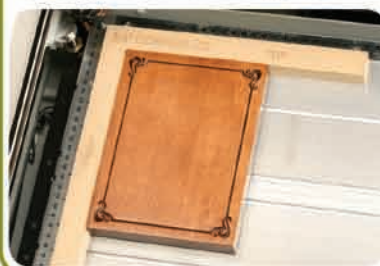
Vector Tray

63058 Vector tray 18"w x 12"H

LATEX FREE

Cleaning Swabs

51216 Laser optics cleaning swabs, *100 PC*

Digital Caliper

51212 6" Digital caliper

Cleaning Tissue

51213 Laser optics cleaning tissue

Shoe Polish

51218 Shoe polish and 3 rags

Cleaning Solution

51215 Laser optics cleaning solution, *1 OZ*

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LASERABLE WOOD

Alder

51084	Alder 12"w x 2¾"h, *25 PC*
51085	Alder 12"w x 4½"h, *25 PC*
51086	Alder 12"w x 5"h, *25 PC*
51087	Alder 12"w x 6½"h, *25 PC*
51088	Alder 4¼"w x 2¾"h, *25 PC*

Veneer

51233	Veneer 12"w x 5"h, *25 PC*

Gold Plate

63055	Gold Plate 12"w x 12"h, *10 PC*

Ribbon

63057	Ribbon *100 PC*

Magnets

63056	1½"w x 2"h *150 PC*

ENGRAVING SUPPLIES

Sign fasteners and adhesives

Hook and loop tape fastener

Nylon hook and loop with rubber-based adhesive backing. Permits easy sign changeover.

Description	Part no.
1" x 3" (set of 12) - white	36233
1" x 3" (set of 12) - black	35781
3/4" x 5 yards (roll) - white	36234
3/4" x 5 yards (roll) - black	35782

Loop

Hook
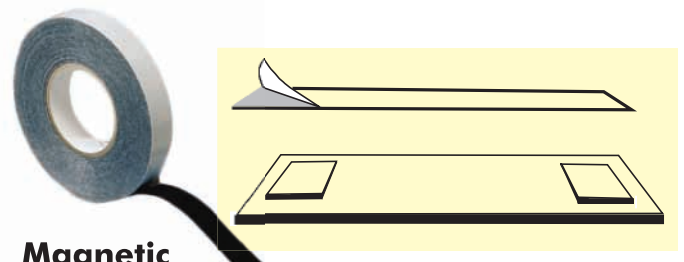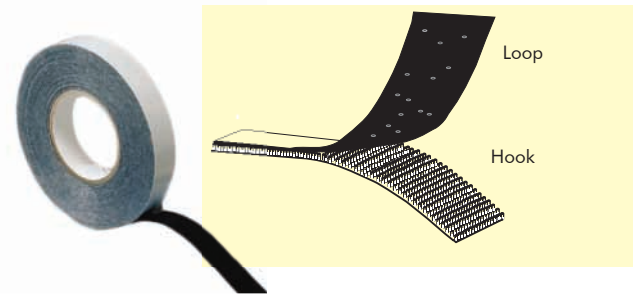
Magnetic strip

Flexible, permanently magnetized strip with premium quality, all-weather adhesive.
.060 magnetic strip with pressure-sensitive adhesive

Description	Part no.
1/2" x 100 ft.	36203
3/4" x 100 ft.	36204
1" x 100 ft.	36205
1" x 24" x 1/16"	36227

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ENGRAVING SUPPLIES

ENGRAVING SUPPLIES Tapes and Adhesives

Exterior double-coated foam tape

Cross-linked, closed cell white poly-ethylene foam coated with high tack, high shear acrylic adhesive system. Good chemical and fuel resistance. Adhesive performance is excellent for mounting applications. Use to attach signage to non-smooth exterior surfaces and to construct signage elements with insert windows.

Exterior foam tape - acrylic-based adhesive

Description	Part no.
1/32" x 1" x 72 yards - white	**36245**
1/32" x 1/2" x 72 yards - white	**36243**
1/16" x 2" x 36 yards - white	**36320**
1/16" x 1" x 36 yards - white	**36246**
1/16" x 1/2" x 36 yards - white	**36244**
1/32" x 3" x 36 yards - white	**36323**
1/32" x 2" x 36 yards - white	**36322**
1/32" x 1/4" x 36 yards - white	**36237**
1/32" x 1/4" x 36 yards - black	**36324**
1/32" x 1/2" x 18 yards - white	**36223**
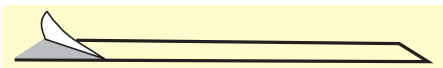
Exterior double-coated film tape

For applications where temperature extremes and environmental considerations are essential. Excellent bond to vinyls, dead-load acrylic adhesive coated on both sides of polyester files. Use to attach signage on smooth exterior surfaces and to assemble signage elements. This product is ideal for applying metal or plastic sheets to award plaques that will be placed in humid areas or areas that experience temperature changes.

Exterior film tape - acrylic-base adhesive

Description	Part no.
Acrylic film tape 3" x 36 yds.	**36326**
Acrylic film tape 2" x 36 yds.	**36325**
Acrylic film tape 1" x 36 yds.	**36220**
Acrylic film tape 1/2" x 36 yds.	**36232**
Acrylic film tape 6" x 18 yds.	**36327**
Acrylic film tape 12" x 18 yds.	**36328**

Tape composition

	Adhesive
	Foam or film
	Adhesive
	Release backing

Interior double-coated foam tape

Cross-linked, closed cell polyethylene foam coated with high tack, high shear synthetic adhesive system. Good chemical and fuel resistance. Adhesive performance is excellent for mounting applications. Use to attach signage on rough interior surfaces and as spacer to assemble signage with insert windows.

Interior foam tape - rubber-base adhesive

Description	Part no.
1/32" x 1" x 72 yards - white	**36240**
1/32" x 1/2" x 72 yards - white	**36241**
1/32" x 1 x 72 yards - black	**35783**
1/32" x 1/2" x 72 yards - black	**35784**
1/16" x 1" x 36 yards - white	**36242**
1/32" x 1" x 18 yards - white	**36216**
1/32" x 1/2" x 18 yards - white	**36217**
1/32" x 1" x 18 yards - black	**35780**
1/16" x 1" x 18 yards - white	**36218**

Interior double-coated film tape

Film coated on both sides with an aggressive rubber-based pressure-sensitive adhesive system. Use to attach signage on smooth interior surfaces and to assemble signage elements. This product is ideal for applying metal or plastic sheets to award plaques.

Interior film tape - rubber-base adhesive

Description	Part no.
1/2" x 36 yards	**36213**
1" x 36 yards	**36214**
2" x 36 yards	**36330**
3" x 36 yards	**36331**
6" x 18 yards	**36332**

Interior paper tape

A 3.5 mm impregnated crepe paper coated on both sides with high quality synthetic adhesive system. For use in applications where tensile strength and additional thickness are needed for bonding and laminating or holding. Excellent for plate mounting. Economical adhesive tape for mounting metals and plastic plates to plaques and awards. Commonly used to stick sheets to the laser or engraving bed to reduce prevent material bowing or slippage during the engraving process.

Interior paper tape - rubber-base adhesive

Description	Part no.
1/2" x 36 yards	**36210**
3/4" x 36 yards	**36211**
1" x 36 yards	**36212**

Adhesive sheets

Lightweight paper stock coated on each side with aggressive rubber-based adhesive. Each adhesive layer is protected by a release-coated liner. Recommended for mounting on flat surfaces. Ideal for applying adhesive backing to engraving sheet stock.

Description	Part no.
Package of 10	
12" x 12 1/2" sheets	**36219**
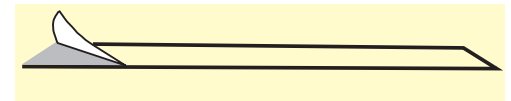
ENGRAVING SUPPLIES

Adhesives

Gravo-Bond

Bonds plastic or metal to any surface. Use just a drop and it sets in 10 seconds. Gravo-Bond is a non-solvent based adhesive.

Description	Part no.
Gravo-Bond adhesive – 1 oz.	36230

New Hermes cement*

For bonding plastics or metal to any surface. Brown cement is specially formulated to use with phenolic.

Description	Part no.
Clear cement - 1 pint can	48700
Brown cement - 1 oz. tube	47989
Bond acrylic - 1 pint can	36236

Oxidizing agents

Aloxide and Gravoxide*
Aloxide and Gravoxide induce a chemical reaction to blacken engraved areas for a contrasting effect. Apply to engraved area and wipe surface clean. 3 oz. bottle.

Description	Part no.
Aloxide 12pk	32799
Anodized aluminum	32800
Gravoxide 12pk	32820
Gravoxide for brass*	32821
Swab applicator	32822

Edges of brass should not be exposed to Gravoxide. Not for use on gold-plated, hand-polished and/or lacquered items.

Paint/Color fills

Engravocolor sticks
For brushless color filling of plastics and base metals. When ordering Engravocolor sticks separately, specify part number and quantity for each color. Sticks are .8 oz.

Color	Part no.
White	32824
Red	32827
Black	32828
Green	32829
Blue	32830
Yellow	32831
12 assorted	32823
(4 black, 4 white, 1 each of other colors)

Paint fill tool
For surface and subsurface paint fill applications. Engraved graphics and letters are color-filled with one pass. A must have tool for paint filling engraved work.

Part no.	
	36226

Laser colored foils
- Solid color 2 mm thick mylar tape for laser engraving
- Adds color and richness to your laser engraved pieces
- Permanent acrylic adhesive great for woods

Description				Part no.
Black	6" x 25"	Roll	45887
Blue	6" x 25"	Roll	45888
Green	6" x 25"	Roll	45894
Red	6" x 25"	Roll	45955
Bright gold	6" x 25"	Roll	46119
Brushed gold	6" x 25"	Roll	46120
Silver	6" x 25"	Roll	46123

Deluxe Paint fill pen
Tool for use in engraving & paint filling. No outside source/compressed air needed. Comes with 4 different easy-to-change tip sizes. A must for engravers who color fill. **51674**

Engravers Enamel*
For filling engraving in metal and plastic. Not recommended for use on Metallex. 1/2 pint cans.

WHITE	BLACK	GOLD	RED	GREEN	BLUE	YELLOW	GRAY	ALMOND	ORANGE

Color	Part no.	Color	Part no.
White	32808	Blue	32814
Black	32812	Yellow	32815
Gold	32809	Gray	32817
Red	32811	Almond	32816
Green	32813	Orange	32810

Rub N Buff
For rich looking fills on non-porous surfaces. Excellent engraving color fill for glass. Just dab on, rub in, and buff off excess.

Color	Part no.
Grecian gold	51675
Silver	51672
Spanish copper	51676
Black	51677
White	51678

*These items are shipped via ground transportation only.

LASER MARKING SUPPLIES

Spray thin coat & let dry   Bond with a CO_2 laser   Wash to reveal mark

All products work with most uncoated metals. Excellent for metal marking with a CO2 laser.
Read instructions carefully before use.

TherMark laser marking tape
For efficient dry permanent marking

TherMark tape is an ideal product for expanding the range of materials that can be marked with a CO2 laser engraver. Available in a 50ft roll in 3 standard widths (1", 2" & 3" wide), it can be used to create high contrast, permanent black marks on bare, plated and anodized metals. Cut the tape to the size of the mark, then simply apply by hand and engrave with a 30W and above laser. The excess tape is then peeled off to reveal the final mark. This product is suitable for outdoor use.

Description	Part no.
TherMark laserable tape 1" wide	48315
TherMark laserable tape 2" wide	46255
TherMark laserable tape 3" wide	48314

TherMark laser marking spray and pastes
Water-based for fast clean up

TherMark liquid pastes allow most metals to be quickly marked using a CO2 laser engraver. A thin coat of material can be painted or sprayed onto the metal, then left to dry for less than 2 minutes. Engrave with your laser of 25W or greater to produce high contrast, permanent black marks. The excess water-based materials can be easily washed off to reveal the final mark.

Description	Part no.
TherMark LMM14 6 oz aerosol spray	47821*
TherMark LMM14 50g liquid paste	47822
TherMark LMM14 250g liquid paste	47823

Cermark laser marking spray and pastes
Solvent-based for easy handling before marking

Cermark metal marking pastes also allow most metals to be marked using a CO2 laser engraver. Similar to TherMark liquids, the Cermark products contain a hardener that allows the products to be easily handled prior to marking with your laser. The final result is the same permanent black marks on a range of bare metals. Good for CO2 lasers, 25W and above.

Description	Part no.
Cermark LMM6000 12 oz aerosol spray	31086*
Cermark LMM6000 50g liquid paste	45694*
Cermark LMM6000 250g liquid paste	31085*
Cermark LMM6000 500g liquid paste	50808*

*These items are shipped via ground transportation only.

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DEALER KITS

New accounts are the lifeline of any business. Branching out into new markets is one way to grow your business and maximize your engraving capabilities. Our sales kits will get you started without extensive product selection and inventory commitments. Here's how it works. Choose the sales kit of your choice. You save at least 25% off the regular individual selling price.

Dealer kits
Includes all imprintable and New Hermes literature.

A. Modular frame presentation kit
Engraved signs displayed on Velcro boards. Features our most popular materials and frame sizes. In a sturdy leather-look portfolio.

Part no.   **36318**

B. Engravers Slatz sign presentation kit
Engraved multi-column, standard and multi-directories, plus wallplates. Kit also includes two Velcro® boards for display.

Part no.   **36319**

Introductory kits

C. Modular frame starter kit
Seven most popular sizes in black, gray and brown. Total of 21 round and square corner frames combined. Includes wall mount, snap locks and suction cups.

Part no.   **35486**

D. Engravers Slatz sign starter kit
Includes standard silver directory, one each of gold and silver mini-directory, deskbar, wallplate and deskplate.

Part no.   **35485**

E. Swatch books
Actual sample chips show the surface and letter colors of all Gravograph materials. Each material is segregated by product line.

Description	Part no.
Swatch book kit (including all plastics)	**36279**
Vinyl swatch book (not included in swatch book)	**36753**

F. Eternity kit demo case

Description
A variety of frames and sizes
Part no.   **51656**

G. Raised letter signage system materials and frames

Pre-cut strips and plates of GravoTac 1/16" profiling material in black and white, equal to 8 full sheets. Plus, 38 black square corner modular frames in the most popular sizes.

Part no.   **36277**

H. Raised letter signage systems-materials only
Pre-cut strips and plates of GravoTac 1/16" backplate and 1/32" profiling material in black, red and yellow, equal to 10 full sheets.

Part no.   **36291**

I. Gravograph print and digital catalogs

Description	Part no.
Product catalog on CD	**51660**
Materials catalog	**51659**
Materials swatch book	**36279**

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...

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ENGRAVING CUTTERS

ENGRAVING CUTTERS

HOW TO SELECT CUTTING WIDTH											
Height of character →	1/64"	1/32"	1/16"	1/8"	1/4"	5/16"	1/2"	3/4"	1"	1 1/4"	2"
The width of the cut is directly related to the height of the engraved character. This chart is a useful *guide* to help you select cutter tip widths for various engraved letter heights. Width of cutter →	B	B	B	B	B	B	B	B	B	B	B
Single line font	.005	.010	.015	.020	.030	.040	.060	.090	.125	.171	.250
Multi line font	.005	.005	.010	.010	.015	.015	.030	.040	.060	.060	.090

1/8" ONECUT CUTTERS

1/8" shank size - compatible with M20 Jewel, M20 3 Axis, M20 4 Axis, IM4, IM3, ITM, ITL, and IF3 machines. Unless otherwise stated, cutter length is 4-5 inches (101.6 mm-127 mm)

1/8" Diamond Drag cutters for metal

Cutting width	Part no.
.020	33954

1/8" Rotating cutter for harder metals and glass

Cutting width	Part no.
.005	52163
.010	52183
.020	51089
.030	52184

1/8" Diamond Drag Inserts for metal

M20 7/16" length Fixed Diamond

Part no.	33825

For IM4RM & Manual Inside Ring Engraver 5/16" length

Part no.	28187

For Heavy Duty Diamond Spindle With insert (1" long for #22224 Spindle)

Part no.	33827

1/8" Burnishing cutters for coated and polished metals

Trophy Brass, Colored and Marbled Steel, Gravoxal, and Gravometal

Cutting width	Part no.
.005	33877
.010	33878
.015	33879
.020	33880
.030	33882
.040	33883
.060	33884
.090	33885

1/8" Carbide cutters for plastic

GPLY I & II, Ultra, Gravolase, Metallex & Metallex 2

Cutting width	Part no.
.005	33855
.010	33856
.015	33857
.020	33858
.030	33860
.040	33861
.060	33862
.090	33863
.125	33864

1/8"Carbide cutters for Gravostrat

Cutting width	Part no.
.010	33836
.015	33837
.020	33838
.030	33839
.040	33840
.060	33841
.090	33842
.125	33843

FOR ADA CUTTERS, SEE PAGE 45

1/8" ONECUT CUTTERS

1/8" shank size - compatible with M20 Jewel, M20 3 Axis, M20 4 Axis, IM4, IM3, ITM, ITL, and IF3 machines
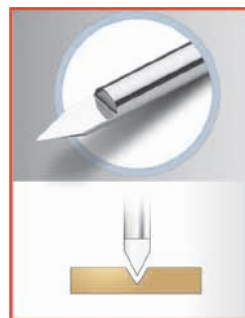
1/8" Carbide cutters for Acrylic and all Gravoglas 110° cutting angle for letters over .5"

Cutting width	Part no.
0.005	33924
0.015	33926
0.020	33927
0.030	33928
0.040	33929
0.060	33930
0.090	33931
0.125	33932

1/8" HSS cutters for Acrylic and all Gravoglas 70° cutting angle

Cutting width	Part no.
0.005	33910
0.010	33911
0.015	33912
0.020	33913
0.030	33914
0.040	33915
0.060	33916
0.090	33917
0.125	33918

1/8" Carbide cutters for Acrylic and all Gravoglas

Cutting width	Part no.
.010	33934
.015	33935
.020	33936
.030	33937
.040	33938
.060	33939
.090	33940
.125	33941

1/8" Carbide cutters for deep engraving aluminum brass and soft metals

Gravoxal, Gravometal, Gravostral, Colored Aluminum, Trophy Brass, Colored and Marbled Steel

Cutting width	Part no.
.005	33866
.010	33867
.015	33868
.020	33869
.030	33870
.040	33871
.060	33872

1/8" Carbide cutters for ferrous metals for deep engraving in steel and ferrous metals

Cutting width	Part no.
0.010	33847
0.015	33848
0.020	33849
0.030	33850
0.040	33851
0.060	33852
0.090	33853
0.125	33854

1/8" HSS cutters for ferrous metals for deep engraving in steel and ferrous metals

Cutting width	Part no.
0.005	33900
0.010	33901
0.015	33902
0.020	33903
0.030	33904
0.040	33905
0.060	33906
0.090	33907
0.125	33908

1/8" Wide Angle cutters for painted, or coated aluminum, brass and soft metals

Gravoxal, Colored Aluminum, Trophy Brass, Colored & Marbled Steel and Gravometal

Cutting width	Part no.
.010	33888
.015	33889
.020	33890
.030	33892
.040	33893
.060	33894
.090	33895
.125	33896

1/8" Quarter Round cutters for stainless steel and other hard metals

Cutting width	Part no.
.005	33943
.010	33944
.015	33945
.020	33946
.030	33948
.040	33949
.060	33950
.090	33951
.125	33952

1/8" Parallel cutters for 90° cut outs

Material type	Part no.
Gravoply	33865
Phenolic	33844
Ferrous Metals	33909

Please see page 92 "How To Choose Parallel Cutters"

1/8" Radius Cutters for rounded cut

Use reverse engraving on Gravoglass for neon tube look. Also used for gasket grooves & 3D milling

Material Type	Part no.
Gravoply	33865
Phenolic	33844
Ferrous Metals	33909

Please see page 92 "How To Choose Parallel Cutters"

11/64" ONECUT CUTTERS

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...
11/64" shank size - compatible with TXL, IS, M, and Vanguard series machines

Diamond 11/64" for Drag and Rotating cutters for metal

Cutting width	Part no.
.020 (Diamong Drag)	34094
.020 (Rotating)	34095

Glass Engraving Faceted Diamond Rotating cutters Max depth .003
(use Gravolube for best results)

Cutting width	Part no.
.010	34122
.015	34123
.030	34124

Glass Engraving Sintered Diamond Rotating cutters Max Depth .003
(use Gravolube for best results)

Cutting width	Part no.
.030	34119
.060	34120
.090	34121

11/64" Burnishing cutters for coated and polished metals

Trophy Brass, Colored and Marbled Steel, Gravoxal, and Gravometal

Maximum depth .002 (use light pressure setting for best results)

Cutting width	Part no.
.005	34036
.010	34037
.015	34038
.020	34039
.030	34041
.040	34042
.060	34043
.090	34044

11/64" Carbide cutters for plastic
GPLY I & II, Ultra, Gravolase & Metallex, Metallex 2

Cutting width	Part no.
.005	34012
.010	34013
.015	34014
.020	34015
.030	34017
.040	34018
.060	34019
.090	34020
.125	34021
.171	34022

11/64" Carbide cutters for Gravostrat

Cutting width	Part no.
.005	33989
.010	33990
.015	33991
.020	33992
.030	33993
.040	33994
.060	33995
.090	33996
.125	33997
.171	33998
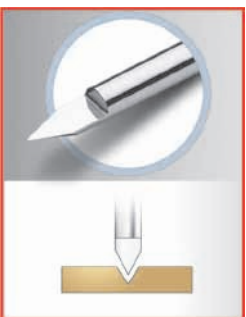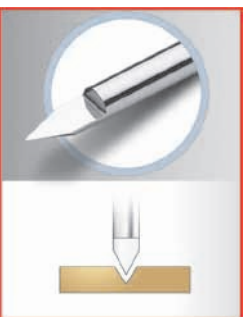
11/64" HSS cutters for Acrylic and all Gravoglas 70° cutting angle

Cutting width	Part no.
0.005	34075
0.010	34076
0.015	34077
0.020	34078
0.030	34079
0.040	34080
0.060	34081
0.090	34082
0.125	34083
0.171	34084

11/64" Carbide cutters for Acrylic
All Gravoglas and Acrylic

Cutting width	Part no.
.005	34108
.010	34109
.015	34110
.020	34111
.030	34112
.040	34113
.060	34114
.090	34115
.125	34116
.171	34117

11/64" Carbide cutters for Acrylic for all Gravoglas 110° cutting angle for letters over .5"

Cutting width	Part no.
0.010	34099
0.015	34100
0.020	34101
0.030	34102
0.040	34103
0.060	34104
0.090	34105
0.125	34106
0.171	34107

11/64" Carbide cutters for deep engraving aluminum brass and soft metals
Gravoxal, Gravometal, Gravostral, Colored Aluminum, Trophy Brass, Colored and Marbled Steel

Cutting width	Part no.
.005	34024
.010	34025
.015	34026
.020	34027
.030	34028
.040	34029
.060	34030
.090	34031
.125	34032
.171	34033

11/64" Carbide cutters for deep engraving steel and ferrous metals

Cutting width	Part no.
.005	34000
.010	34001
.015	34002
.020	34003
.030	34004
.040	34005
.060	34006
.090	34007
.125	34008
.171	34009

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11/64" ONECUT CUTTERS

11/64" shank size - compatible with TXL, IS, M, and Vanguard series machines
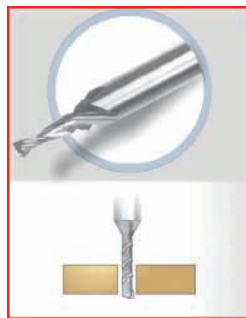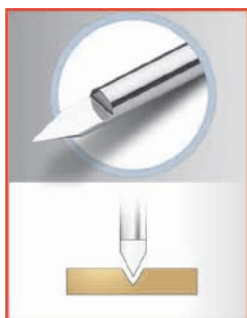
11/64" HSS cutters for ferrous metals for deep engraving in steel and ferrous metals	
Cutting width	**Part no.**
0.005	34064
0.010	34065
0.015	34066
0.020	34067
0.030	34068
0.040	34069
0.060	34070
0.090	34071
0.125	34072
0.071	34073

11/64" Wide Angle cutters for painted, or coated aluminum, brass and soft metals	
Gravoxal, Colored Aluminum, Trophy Brass, Colored & Marbled Steel, and Gravometal	
Cutting width	**Part no.**
.005	34049
.010	34050
.015	34051
.020	34052
.030	34054
.040	34055
.060	34056
.090	34057
.125	34058
.171	34059

11/64" Quarter Round cutters for stainless steel and other hard metals	
Cutting width	**Part no.**
.005	34126
.010	34127
.015	34128
.020	34130
.030	34132
.040	34133
.060	34134
.090	34135
.125	34136
.171	34137

11/64" End Mill cutters for deep routing in metal	
Cutting width	**Part no.**
.060	34146
.090	34147
.125	34148
.171	34149

11/64" Parallel cutters for 90° cut outs	
Material Type	**Part no.**
Gravoply	34023
Phenolic	33999
Acrylic	34118
Ferrous Metals	34010
Aluminum	34034

Please see page 92 "How To Choose Parallel Cutters"

## FOR ADA CUTTERS, SEE PAGE 45

11/64" Radius Cutters for rounded cut

Use reverse engraving on Gravoglas for neon tube look. Also used for gasket grooves & 3D milling

Material Type	Part no.
Gravoply	34023
Phenolic	33999
Acrylic	34118
Ferrous Metals	34010
Aluminum	34034

Please see page 92 "How To Choose Parallel Cutters"

FONT TYPES ARE CRITICAL TO ENGRAVING QUALITY AND TIME

There are 2 main types of fonts for engraving: TrueType (print fonts), and pre-engineered engraving fonts.

TrueType fonts are outline fonts. They can be filled for a solid, bold look. Filling requires the engraving program to calculate the tool paths.

Engraving fonts are pre-engineered fonts with optimized tool paths designed for reducing engraving time and optimizing engraving quality. Engraving fonts are optimized with reduced tool lifts and tool paths starting from the inside of a contour - so you don't lose the leading edge of a filled contour which causes "dimpling". Direction of tool path is predetermined for high quality engraving. The engraving path order is optimized as a time saving measure. Use single-line fonts to increase production speed.

When selecting cutters, please use the B chart on page 87 as a guideline for choosing the appropriate sized tip for engraving.

Cutter up travel

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts…

1/4" shank size - compatible with ¼" Collet spindles
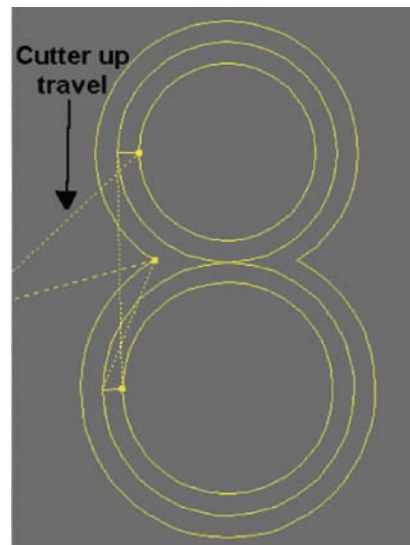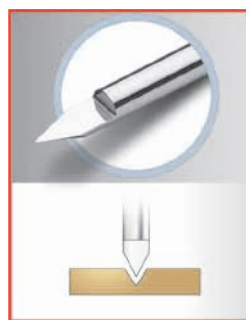
1/4" Diamond Drag cutters for metal

Cutting width	Part no.
.020	34261

1/4" Burnishing cutters for coated and polished metals.
Trophy Brass, Colored and Marbled Steel, Gravoxal, and Gravometal
Maximum depth .002 (use light pressure setting for best results)

Cutting width	Part no.
.010	34207
.015	34208
.020	34209
.030	34211
.040	34212
.060	34213
.090	34214

1/4" Carbide cutters for plastic
GPLY I & II, Ultra, Gravolase, Metallex & Metallex 2

Cutting width	Part no.
.005	34184
.010	34185
.015	34186
.020	34187
.030	34189
.040	34190
.060	34191
.090	34192
.125	34193
.171	34194
.250	34196

1/4" Carbide cutters for Gravostrat and Gravoply 2-Plex

Cutting width	Part no.
.005	34158
.010	34159
.015	34160
.020	34161
.030	34162
.040	34163
.060	34164
.090	34165
.171	34167
.250	34169

1/4" Carbide cutters for Acrylic
All Gravoglas and Acrylic 70° cutting angle for deep engraving

Cutting width	Part no.
.010	34273
.015	34274
.020	34275
.030	34276
.040	34277
.060	34278
.090	34279
.125	34280
.171	34281
.187	34282
.250	34283
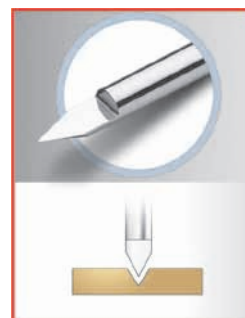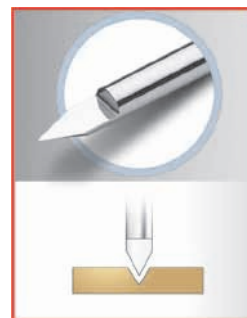
1/4" Carbide cutters for Acrylic and all Gravoglas
110° cutting angle for letters over .5"

Cutting width	Part no.
0.030	34265
0.060	34267
0.171	34270
0.250	34272

1/4" HSS cutters for Acrylic and all Gravoglas
70° cutting angle

Cutting width	Part no.
0.010	34248
0.015	34249
0.020	34250
0.030	34251
0.040	34252
0.060	34253
0.090	34254
0.125	34255
0.171	34256
0.187	34257
0.250	34258

1/4" Carbide cutters for deep engraving aluminum, brass and soft metals
Gravoxal, Gravometal, Gravostral, Colored Aluminum, Trophy Brass, Colored and Marbled Steel

Cutting width	Part no.
.005	34198
.010	34199
.015	34200
.020	34201
.030	34202
.040	34203
.060	34204

1/4" Wide Angle cutters for painted or coated aluminum, brass and soft metals
Gravoxal, Colored Aluminum, Trophy Brass, Colored & Marbled Steel, and Gravometal

Cutting width	Part no.
.010	34219
.015	34220
.020	34221
.030	34223
.040	34224
.060	34225
.090	34226
.125	34227
.171	34228
.190	34229
.250	34230

1/4" Carbide 18° cutters for deep engraving steel and ferrous metals

Cutting width	Part no.
.005	34309
.010	34310
.015	34311
.030	34312

1/4" ONECUT CUTTERS

1/4" shank size - compatible with ¼" Collet spindles
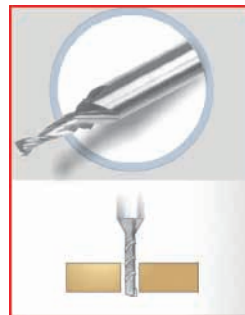
1/4" HSS cutters for ferrous metals for deep engraving in steel and ferrous metals

Cutting width	Part no.
0.005	34236
0.010	34237
0.015	34238
0.020	34239
0.030	34240
0.040	34241
0.060	34242
0.125	34244
0.250	34247

1/4" Quarter Round cutters for stainless steel and other hard metals

Cutting width	Part no.
.005	34285
.010	34286
.015	34287
.020	34288
.030	34290
.040	34291
.060	34292
.090	34293
.125	34294
.171	34295

1/4" Carbide 20° cutters for deep engraving steel and ferrous metals

Cutting width	Part no.
.005	34313
.010	34314
.015	34315

1/4" End Mill cutters for deep routing in metal

Cutting width	Part no.
.060	34303
.090	34304
.125	34305
.250	34306

1/4" Parallel cutters for 90° cut outs

Material Type	Part no.
Gravoply	34023
Phenolic	33999
Ferrous metals	34010

Please see page 92 "How To Choose Parallel Cutters"

FOR ADA CUTTERS, SEE PAGE 45

1/4" Radius cutters for rounded cut

**Use reverse engraving on Gravoglas for neon tube look.
Also used for gasket grooves & 3D milling**

Material type	Part no.
Gravoply	34023
Phenolic	33999
Ferrous metals	34010

Please see "How To Choose Parallel Cutters" to the right
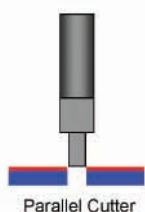
Parallel Cutter

HOW TO CHOOSE PARALLEL CUTTERS

Typical applications – Typical applications for Parallel cutters include cutting holes and routing flexible engraving plastic.

Type of cut – The main difference between Parallel cutters and standard engraving cutters is that the cut is vertical rather than beveled.

How to order

1) Choose the cutter family by the material you are engraving or cutting from the charts on these pages. For soft plastic, choose either Carbide or High Speed Steel (HSS). Carbide lasts longer but costs more than High Speed Steel (HSS). For metal, carbide is recommended.

2) Specify the tip diameter size.
   • Tip sizes can be specified from .015" to the shank diameter.

3) Specify the cutting depth.
   • For best strength, specify tip length up to 1.5 times the tip diameter.
   • Tip lengths > 1.5 x tip size can be specified, but they will tend to break easier.

4) Call Customer Service at 1-800-843-7637 to place an order.

Parallel cutters vs. engraving cutters where tip size equals shank diameter – Standard conical cutters with tip size equal to shank size will also provide a vertical cut. The difference is that the cutting depth is fixed with engraving cutters, but can be specified with Parallel cutters.

Typically, the cutting depth of engraving cutters with tip size equal to shank diameter is in the range of .125" - .150". These are primarily for engraving applications, but can also be used for routing.

Application tips – Cutting or routing 1/8" acrylic is best performed with a 90 x 150 Parallel cutter (.090" tip and .150 length). The Carbide tool is part number 34118, and the HSS tool is part number 34085. Cutting in one pass can be accomplished with the 200 watt spindle motor. Cut in multiple passes when using the 80 watt spindle motor.

Cutting or routing 1/4" acrylic is best performed with a 171 x 275 Parallel cutter (.171" tip and .275 length). The Carbide tool is part number 34118 and the HSS tool is part number 34085. This should be cut in multiple passes.

Radius cutters – Radius cutters are similar to Parallel cutters except for having a rounded shape. These are specified the same. Available in HSS or Carbide for tip sizes at least .030". Applications include reverse engraving, 3D contouring & gasket grooves.

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts…

SPECIALTY CUTTERS AND ACCESSORIES

Gravoglyde attachment

Add the Gravoglyde attachment to your cutter to get a light pressure or soft touch for a great polished look for burnishing (not for M series machines).

For 1/8" cutters	34379
For 11/64" cutters	34384

Yellow handle cutter wrench

To tighten and loosen set-screws in brass collar of 1/8", 11/64", and 1/4"cutters. **33015**

Black handle cutter wrench

To tighten and loosen set-screws in brass collar of M20 and M40 machine spindles (for cutter replacement). **10016**

Wrench for diamond inserts

To tighten and loosen set screws holding diamond inserts. **33009**

Ball Point Pen cutter

Used to verify engraving location on tape prior to engraving to prevent costly mistakes.

1/8" Ball Point Pen cutter for IM4 and M20 machines	47112
Ball point pen assy. (11/64" shaft) M40 only	21679
Ball point pen assy. (11/64" shaft) IS Series only	33568
Ball point pen cartridge replacement (medium) 2 per pack	33569
Paper and card holder - 8" to "pen-out" jobs	33571

Diamond inserts

5/16" length, 1/8"shank for manual Inside ring engraver and IM4RM	28187
7/16" length, 1/8"shank for M20 Pix and M20 Fixed Diamond	33825
Heavy duty diamond spindle with insert, non-rotating	22224
1" replacement insert for 22224	33827

.015 Modified Faceted cutter for glass engraving

Use with nose cone 32777

Description	Part no.
11/64 Modified Faceted cutter 015 6" Long	49720

Cutters for collet spindles / All 2" length unless specified

Bottom Load Tools

Description		Part no.
1/8 Carbide Cutter 010 1.5in	Hf Spindle; 1.5in Len	52182
1/8 Carbide Cutter 020 1.5in	Hf Spindle; 1.5in Len	52181
1/8 Ball End Mill 1/32d	1.5in 4flute Tin Coat	48464
1/8 Ball End Mill 3/64d	1.5in 4flute Tin Coat	48465
1/4 Carbide Cutter 15° 0.002	For 1/4 Collet 2in	34307
1/4 Carbide Cutter 20° 0.005	For 1/4 Collet 2in	34313
1/4 Carbide Cutter 18° 0.010	For 1/4 Collet 2in	34310
1/4 Carbide Cutter 20° 0.010	For 1/4 Collet 2in	34314
1/4 Carbide Cutter 18° 0.015	For 1/4 Collet 2in	34311
1/4 Carbide Cutter 20° 0.015	For 1/4 Collet 2in	34315
1/4 Stencil Carbide Cutter 010	For 1/4 Collet 2in	52179
1/8 Stencil Carbide Cutter 010	For 1/8 Collet 2in	52180
1/4 End Mill 092d 2in 2flute	For 1/4 Collet 2in	34304
1/4 End Mill 250d 2in 2flute	For 1/4 Collet 2in	34306
1/4 End Mill 125d 2in 2flute	For 1/4 Collet 2in	34305
1/4 End Mill 062d 2in 2flute	For 1/4 Collet 2in	34303
1/4 End Mill 125d 2in 2flute	For Router	46360
1/4 Ball End Mill 125d 2in 2flute	For Router	46043
1/4 End Mill 250d 2in 2flute	For Router	46359
1/4 Ball End Mill 250d 2in 2flute	For Router	46044

Top Load Tools

1/8 Stencil HSS Cutter 010	Top Load 18°	33898
1/4 Stencil Carbide Cutter 010	Top Load 18°	34155
1/4 Stencil HSS Cutter 010	Top Load 18°	34232
11/64 Stencil Carbide Cutter 010	Top Load 18°	33984
11/64 Stencil HSS Cutter 010	Top Load 18°	34061
11/64 Stencil HSS Cutter 040	Top Load 18°	34091
11/64 Stencil HSS Cutter 060	Top Load 18°	34092
11/64 Stencil HSS Cutter 080	Top Load 18°	34093
11/64 Engr.End Mill 060 Cutter	6-3/8 Lg.	34146
11/64 Engr.End Mill 090 Cutter	6-3/8 Lg.	34147
11/64 Engr.End Mill 125 Cutter	6-3/8 Lg.	34148
11/64 Engr.End Mill 171 Cutter	6-3/8 Lg.	34149

Beveling cutter

45° angle for matrix beveling cutouts on computerized machine. 0" tips size

Description	Part no.
1/8 diameter	33960
11/64 diameter	34048

Beveling Combo cutter

Cut out and bevel in one operation. Bevel at 45deg for 1/3 to 1/2 of depth and parallel edges to full depth. Applications include badges and irregular shaped items difficult to do with beveling machine.

Description	Part no.
11/64 for 1/16 material, 060 tip, 032"	65247
11/64 for 1/8 material, 060 tip, 062"	65248
1/4 for 1/8 material, 060 tip, 062"	65249
1/4 for 1/16 material, 060 tip, 032"	65250

Custom cutter sizes are available upon request

ONECUT Cutter Sharpening Service

Resharpen	Part number
Carbide tip	36671
Parallel cutter	36672
End mill	36669
Diamond cutter	36667
Diamond glass cutter	36666

Note:
Diamond cutters missing diamond tips can't be resharpened. Saw blades, shear blades and corner shaper cutters resharpening service available Please send cutters to:
Gravograph Cutter Sharpening Service
2144 Bridge Avenue • Point Pleasant, NJ 08742

ZEROING YOUR CUTTER AND SPINDLE

Before You Begin

This document explains how to reset your cutter and depth nose for engraving plastic and metal material. Properly setting the cutter will provide a consistent engraving depth throughout the material and give your chip collection system increased ability to remove debris from the engraving area. Properly setting your cutter can reduce the risk of breaking the cutter tip by not allowing it to drill too deep.

Q: *When should I reset my cutter?*

A: *You should reset the cutter when the cutter is being changed or if you experience inconsistent or incorrect depth.*

This procedure can be performed on any Gravograph rotary engraver using any conical (V-shaped) tip, diamond cutter or burnisher.

You will need: Cutter, 2mm Allen driver or cutter wrench spline (depending which machine you own).

Step-By-Step Instructions (Plastic)

Note: Steps 1-6 are for using V-shaped cutters used for engraving plastic or wood.

1. If you own a GTM-series machine, use the 2mm Allen key to loosen set screw and remove cutter. If you own and IS-series or Vanguard-series engraver, use cutter wrench spline to loosen set screw on gold cutter button to remove cutter.

2mm Allen
Cutter Wrench Spline
M Series   IS Series
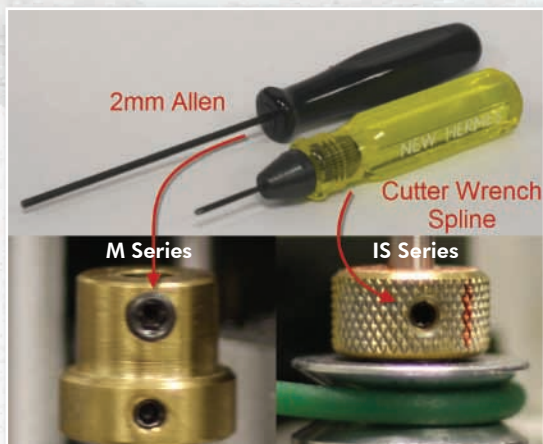
2. Screw micrometer all the way up then unscrew three full turns to the nearest zero. (See picture in step 3)

3. Use arrow buttons on machine to move spindle over material. Press **Z then down** to lower nose cone to the material until it touches.
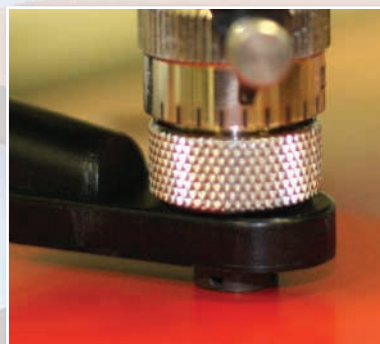
4. Insert cutter through the top of the spindle and gently lower it all the way until you feel it touch the bottom. Tighten set screw to secure cutter.

5. Press **Check**.

6. Use micrometer to dial in desired depth, thus exposing the tip.

Step-By-Step Instructions (Metal)

Note: Steps 7-10 are for using diamond cutters or burnishers for engraving on metal.

7. If you own a GTM-series machine, use the 2mm Allen key to loosen set screw and remove cutter. If you own and IS-series or Vanguard-series engraver, use cutter wrench spline to loosen set screw on gold cutter button to remove cutter.

8. Screw micrometer all the way up then unscrew three full turns to the nearest zero.

9. Insert cutter through the top of the spindle and gently lower it until the cutter protrudes from the nose cone approximately ¼ inch.
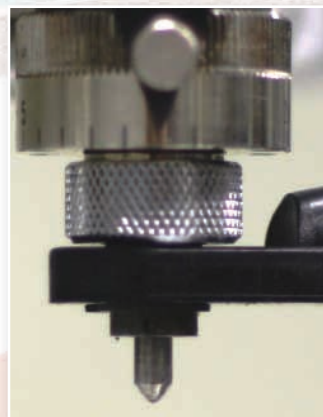
Note: If getting inconsistent engraving, check that the cutter is held tightly. Also check if tip is dull and needs to be changed.

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JIGS

JIGS AND HOLDING DEVICES

All jigs with 5 mm vise pins can be used with IS and M series machines
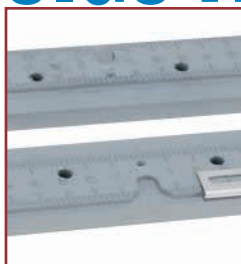
NAMEPLATE JIG with stop (6" long)
32936 - for machines with 3/16" vise pins
32937 - for all IS* machines, or machines with 5 mm vise pins

FLAT PLATE JIG (5.5" long)
31367 - for machines with 3/16" vise pins
31368 - for all IS* machines, or machines with 5 mm vise pins

ALUMINUM JIG (9.5" long)
Holds name plates, or flat items.
22872 - For use with machines* with 5 mm vise pins

JEWELRY NAME PLATE JIG
32922 - for machines with 3/16" vise pins
32923 - for all IS* machines, or machines with 5 mm vise pins

WATCH JIG
32926 - for machines with 3/16" vise pins
32927 - for all IS* machines, or machines with 5 mm vise pins

ID BRACELET JIG
Part no. 28192 for all M series and IS series machines
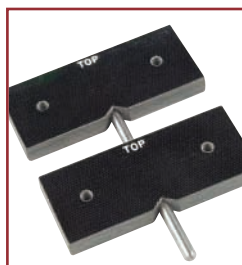
SIGNET RING JIG
32908 - for machines with 3/16" vise pins
32909 - for all IS* machines, or machines with 5 mm vise pins

CHARM AND BANGLE BRACELET JIG
32892 - for use with machines* with 3/16" or 5mm vise pins

JEWELRY VISE
Holds small jewelry items.
22870 - For use with machines* with 5 mm vise pins

IRREGULAR SHAPE
Holds irregular shaped items - comes with 6 pins.
32887 - for use with machines* with 3/16" or 5mm vise pins.
33089 - 6 extra pins
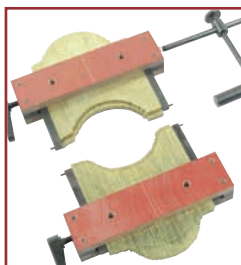
MULTI-PURPOSE JIG
Holds items of many shapes and sizes. Sliding pins conform to the shape of the object to be held.
20193 - for machines with 3/16" vise pins
30628 - for all IS* machines, or machines with 5 mm vise pins

RUBBER PEN JIGS
32882 - Jigs will not scratch parts. These are compliant yet firm enough to securely hold irregularly shaped objects
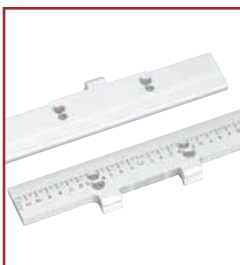
PEN AND TUBULAR OBJECT JIG
32881 - for use with machines with 3/16" or 5mm vise pins

GRAVOFOIL JIG
For use with thin material like Gravofoil.
22868 - For use with all engraving machines that have a vise
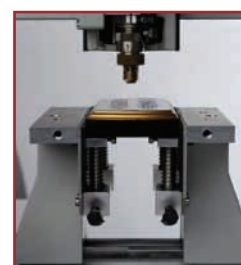
DEPTH ADJUSTABLE JIG
65414

Call for details on specialty jigs not pictured.

Gravograph provides an extremely wide selection of jigs, developed for and with customers.
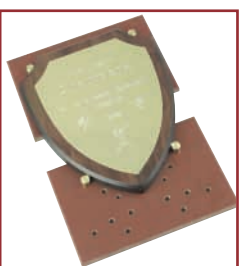
PLAQUE JIG
32893 - for use with machines with 3/16" vise pins
32931 - for all IS* machines, or machines with 5 mm vise pins
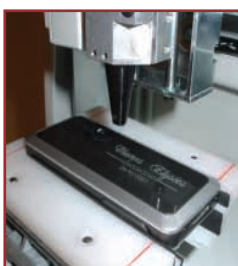
CELL PHONE JIG
49510 - specially designed to hold cell phones and electronic devices such as ipods, PSP games, etc.
For all M series and IS machines, or machines with 5 mm vise pins
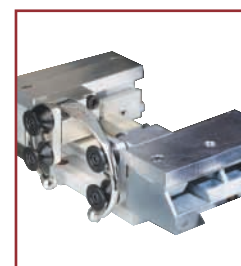
BANGLE BRACELET JIG
51729 - for outside engraving of bangle bracelets; Works in 90° engraving mode.
For all M series and IS machines, or machines with 5 mm vise pins

Within the continental US call +1.800.843.7637   Outside the continental US call +1.770.623.0331

ENGRAVING NOSE CONES FOR REGULATING ENGRAVING DEPTH

Depth noses are essential in ensuring perfect and constant engraving depth. We offer a wide variety of noses which are compatible with all our machines.

.040 Steel nose cone for 1/8" cutters. Uses up to .020 cutter widths
Part no. 20130

060 Steel nose cone for 11/64" cutters. Uses up to .040 cutter widths
Part no. 20131

092 Steel nose cone for 11/64" cutters. Uses up to .060 cutter widths
Part no. 20486

.185 Steel nose cone for 11/64" cutters. Uses up to .171 cutter widths
Part no. 12215

.093 Steel nose cone for 1/4" cutters. Uses up to .060 cutter widths
Part no. 20936

Wide nose
for filling larger text/logos - to maintain contact with the surface of the material to prevent "dimples or low spots" 16 mm .63 opening
Part no. 20960

.250 Steel nose cone for 1/4" cutters. Uses up to .187 cutter widths
Part no. 20491

5mm Steel Swivel nose cone for 11/64" cutters. For glass engraving and to control depth on uneven or curved surfaces
Part no. 20459

3.5mm Teflon Swivel nose cone for 11/64" cutters. For glass engraving and to control depth on uneven or curved surfaces - prevents scratches.
Part no. 22481

Prismatic Swiveling Steel nose cone for 11/64" cutters. Used for curved jewelry-bracelets such as ID or bangle bracelets
Part no. 22885

8mm Delrin nose cone for 11/64" cutters. Prevents scratches on easily scratched surfaces
Part no. 31373

Fixed Diamond nose cone11/64". Provides better rigidity & accuracy than a non-rotating diamond cutter. Also good for picture engraving and jewelry   Part no. 22884

3.3mm nose cone and nozzle assembly for collet spindle chip collector - Part no. 32351

3.3mm nose cone only for 11/64" or collet spindle chip collector - Part no. 21665

1.5mm nose cone and nozzle assembly for collet spindle chip collector
Part no. 32353

1.5mm nose cone only for 11/64" or collet spindle chip collector - Part no. 21666

Standard nose cone for 11/64" chip collector - Part no. 21667

8mm nose cone and nozzle assembly for 11/64" cutters using chip collector Uses up to .171 cutter widths - Part no. 31372

2" Delrin nose cones for 11/64 spindle - Part no. 31377
2" Delrin nose cones for collet spindle - Part no. 31376
Used for plastic cut outs to handle high chip loads

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FABRICATION EQUIPMENT

SHEARS AND SAWS

Shear cutting thickness specs:

	Metal	Plastic	Combo
Flexible plastics		1/16"	1/16"
Trophy brass	0.025"		0.020"
Aluminum	0.050"		0.030"
Steel	0.025"		0.015"
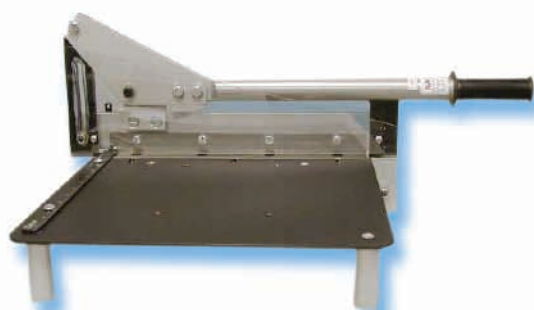
Combination metal, and plastic shear
• The lower blade is easy to set and replace.
• The handle offers leverage for easier cutting.
• There is no flex on the upper blade.
• Three scale selections optimize the settings of blades.
• There is no need to adjust the upper blade.
• Improved angles on the upper blades result in smoother cutting.
• Parts are easy to replace because the shear is modular in design.

Combo shear part number - 31711
Metal shear part number - 20199
Plastic shear part number - 20198

Replacement Blades

Upper Blade				Lower Blade
Metal	Plastic	Combo		All
Current model (shown above) - black table & silver handle				
31723	31732	31716		31733
European model - white table & black handle				
20201	10205	n/a		10204
Original model - gray or orange				
31714	31729	n/a		31730

Shear Blade Sharpening Service

Lower shear blade (metal, plastic or combo)	36683
Upper plastic shear blade	36685
Upper metal shear blade	36684
Upper combo shear blade	36682
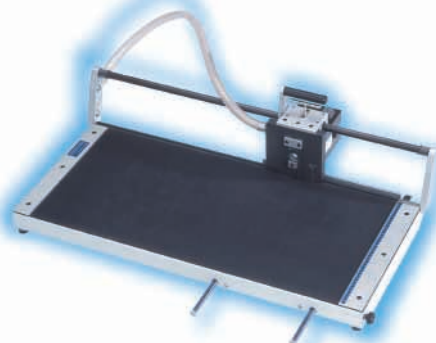
VA-10 safety saw
• Maximum cutting thickness for plastics up to .250" thick.
• Maximum cutting thickness for non-ferrous metals (brass and aluminum) up to .157" thick.
• Safely cuts plastics and metals up to 24.5" wide.
• Accurate cutting ensured by a movable stop with automatic return and ruler.
• Integrated chip collector.
• Lubrication system, saw comes standard with .5 liter (16.9 oz) bottle of Vargol lubricant.
• Saw blade: 24 Tungsten Carbide.
• Motor: 350 watt, 60hz, 110 volt, 15,000 RPM.
• Dimensions: 32.7" x 21.7" x 9.8".

Part number - 21771

Replacement motor - 24205
Replacement blade, 24 teeth: 21773
Optional blade, 36 teeth: 21796
Vargol lubricant, 16.9 oz. bottle: 21780
Replacement on/off switch: 21784
Fuse - 10 amp pack of 5: 49898

VA21-15 safety saw
• Maximum cutting thickness for plastics up to .2725" thick.
• Maximum cutting thickness for non-ferrous metals (brass and aluminum) up to 0.197" thick.
• Safely cuts plastics and metals up to 40.55" wide.
• Integrated chip collector.
• Lubrication system, saw comes standard with .5 liter (16.9 oz) bottle of Vargol lubricant.
• Saw blade: 36 Tungsten Carbide.
• Motor: 500 watt, 60 Hz, 110 volt, 13,000-15,000 RPM.
• Dual stop on right hand side with spring-operated return and graduated ruler.
• Side stop on left hand side with adjustment and material support.
• Dimensions: 50.4" x 21.7" x 9.8".

Part number - 21769

Replacement blade, 36 teeth: 21796

CORNER SHAPER

CORNER SHAPES TOOLS

Part #	Description
32200	Manual cornermate (Base only)
32201	Decorative 3/8 cornermate unit
32202	Decorative 1/2 cornermate unit
32203	Decorative 5/8 cornermate unit
32204	Round 1/8 cornermate unit
32205	Round 1/4 cornermate unit
32206	Round 5/16 cornermate unit
32207	Round 3/8 cornermate unit
32208	Round 1/2 cornermate unit
32209	Scallop 1/4 cornermate unit
32210	Scallop 3/8 cornermate unit
32211	Scallop 1/2 cornermate unit
32212	Notch 1/8 cornermate unit
32213	Notch 1/4 cornermate unit
32214	Notch 3/8 cornermate unit
32215	Notch 1/2 cornermate unit
32216	Hole punch 4 Position unit
32217	Step 1/4 cornermate unit
32218	Step 3/8 cornermate unit
32219	Slot cornermate unit
32220	Ornamental 3/8 cornermate unit
32221	Ornamental 1/2 cornermate unit
32222	Ornamental 5/8 cornermate unit
	Resharps custom shapes available
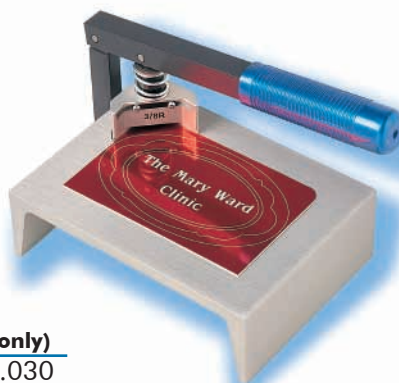
Capacity (corner only)

Brass	.030
Aluminum	.040
Steel	.015
Plastic	.160

- Channel aluminum cutting table
- Accepts cutting units 5/8" or smaller
- Portable 9 1/2" L x 6" W x 4 1/2" H x 3 lbs

Onecut Corner Shaper Sharpening Service

Resharpen	Part number
Corner shaper blade	36521

CORNER SHAPES

HOLE PUNCH

(1/8" increments)

ADJUSTABLE DIAGONAL HOLE

OR (3/32" HOLE)

1/4" + 1/8"

ADJUSTABLE EDGE HOLE

SLOT SIZE 1/8" X 9/16"
2" MAX. WIDTH
CUTS ALUMINUM, BRASS, PLASTIC

SLOT

STEP

1/4 P

3/8 P

ORNAMENTAL

3/8 O — 3/8"

1/2 O — 1/2"

5/8 O — 5/8"
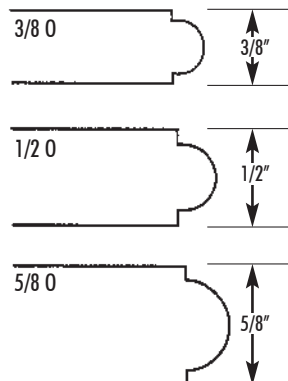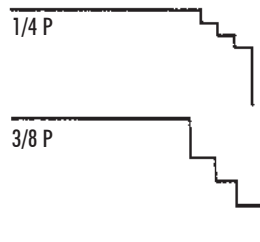
(SHAPES SHOWN ARE ACTUAL SIZE)
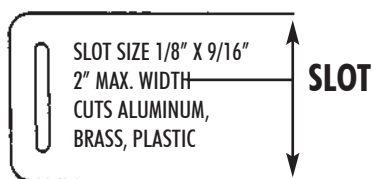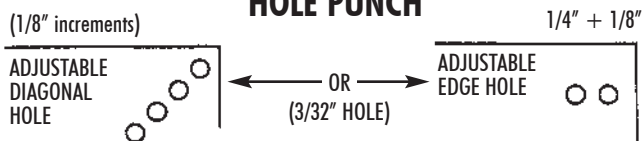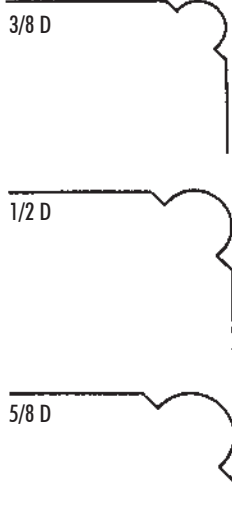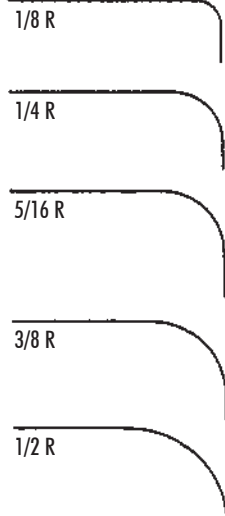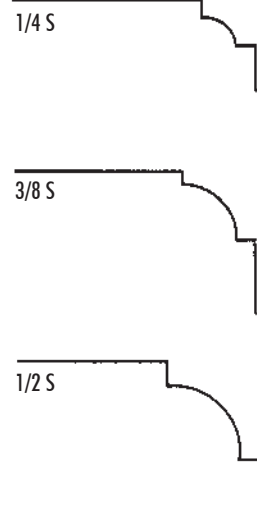
DECORATIVE

3/8 D

1/2 D

5/8 D

ROUND

1/8 R

1/4 R

5/16 R

3/8 R

1/2 R

SCALLOP

1/4 S

3/8 S

1/2 S

NOTCH

1/8 N

1/4 N

3/8 N

1/2 N
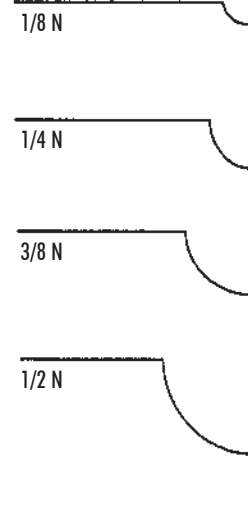
BEVELING AND GRINDING MACHINES

B4

- Simple beveling for plastic materials up to .125" thick.
- 3 types of beveling - 30 degree, 45 degree and 90 degree.
- 2 different types of tools - 1/8" diameter (steel and Tungsten Carbide) according to the materials to bevel.
- Order cutters separately, based on your application.
- Dimensions: 12.2" x 6.3" x 4.7"
- Weight: 15 lbs.

Part number - 32274

1/8" cutters for B-4 Beveler:
- For 30 degree angle - **33956**
- For 45 degree angle - **33958**
- For 90 degree angle - **33967**
- For full width - **33960**

B6

- For easy beveling on plastic and metal materials up to .250".
- Order cutters separately based on your application.
- Includes device to cut rounded corners with 3 different radii (0.2", 0.4", 0.6").
- Comes with an integrated chip extractor .
- Dual micrometers control depth, angle of beveling and corner rounding
- Dimensions: 19.7" x 13.4" x 11.8"
- Weight: 16 lbs

Part Number - 32190

1/4" Cutters for B-6 Beveler:
- For 30 degree angle - **34322**
- For 45 degree angle - **34323**
- For 90 degree angle - **34324**

Rounding jig kit
24661 - B6 rounding jig kit for .2", .4" and .6"
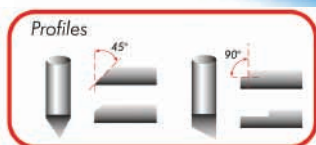
CG-30 CUTTER GRINDER

- Reliability and quality. The CG 30 grinding machine benefits from Gravograph's high standards of manufacturing and knowledge.
- Compact, CG 30 requires minimal workspace.
- Easy to use. CG 30 enables the grinding of all cutters except diamond tip cutters.
- The cutter is automatically positioned, thanks to the guiding tool.
- The principal cutting angles are selected, thanks to the graduated index.
- A preset index automatically indicates the cutter position for the realization of the truncature, without disassembling the cutter holder.
- Absolute safety. CG 30 protection guard ensures optimum protection.
- Clean. The incorporated dust extractor allows collection of the dust particles.
- A series of collets for the grinding of cutter (1/8", 11/64", 3/64", 1/4", 5/16").

Part Number - 34490 - CG-30 Cutter Grinder (includes 1 collet-specify from list below, 1 carborundum grinding wheel, 1 11/64" diamond dresser).

Grinder Collets	Grinding Wheels	Dresser Stick	Replacement Belt
20890 - 1/8"	**32760** - 2 1/4" diamond for sharpening all cutter types	**32766** - 1/4" dressing stick for resin bound diamond wheel. Used for smoothing diamond wheel.	**13370**
20891 - 11/64"			
20892 - 1/4"			
27836 - 5/16"			

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MANUAL MACHINES

GTX-L/ITX-L Pantograph floor model engraving machines

A sturdy floor model designed to accommodate odd shape, cylindrical and flat items. Ideal for objects such as bowls, cups, trays, trophy plates, awards, control panels and signage.
Holds plates up to 14.75" high by any length and up to 8" thick.
Holds cylindrical objects up to 8" in diameter with optional adapter.

Specifications
• 25 engraving ratios from 2:1 to 7:1
• 3.5" x 12" engraving area at 2:1 ratio
• 6" x 16" graduated copy slide table for holding multiple copy slides for multi-line engraving
• Order 11/64" diameter cutters to fit IM-3 rotating spindle
• Auto indexing system
• 4 work holding cones up to 6" diameter
• Machine stand included
• Dimensions: 30" x 22" (762 mm x 559 mm)
• Approximate weight: 100 lbs

Model Non-rotating spindle **GTX-L**		**31122**
Model Rotating spindle **ITX-L**		**31124**

RV-II Inside Ring Engraver   Part No. 34637
• Engraves inside of rings
• Automatically centers ring in clamping jigs
• Easy to use, synchronized, one step engraving and spacing
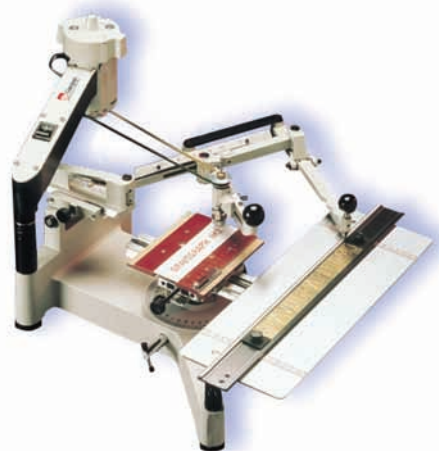• Diamond insert for hand engraving effect

Tracing stylus	21190
Holding jigs (1each)	12500
Diamond insert for RV-II	33825

Copy dials for inside ring engraver
(Includes numbers and letters)

Extended gothic and tilted block (Standard with RV-II)	49138
Extra condensed block	49139
For 2-line engraving	47586
Connecting script dial	24766

GM-3/IM-3/GF-3/IF-3 Pantograph engraving machines

A lightweight and compact engraving machine ideal for businesses with limited space. Its automatic centering capabilities make it simple to operate. Ideal for small objects such as nameplates, badges, ID plates, and small jewelry items.

GM-3/IM-3: Holds plates up to 5.5" high by any length
GF-3/IM-3: Holds plates up to 3.5" high by any lenth

Specifications
• 25 engraving ratios from 2:1 to 7:1
• 4.5" x 9 7/8" engraving area at 2:1 ratio
• 6" x 16" graduated copy slide table for holding multiple copy slides for multi-line engraving
• Order 1/8" diameter cutters to fit IM-3 rotating spindle
• Approximate Dimensions:
GM-3/IM-3 - 16" x 22" x 15" (406 mm x 558 mm x 381 mm)
GF-3/IF-3 - 18" x 22" x 15" (457 mm x 558 mm x 381 mm)
• Approximate weight: 25 lbs

Model Non-rotating spindle **GM-3**	**30640**
Model Rotating spindle **IM-3**	**30644**
Model Non-rotating spindle **GF-3**	**31229**
Model Rotating spindle **IF-3**	**31230**

Check list to complete manual machine order
• Copy holding slides
• Copy type
• Cutters

http://www.gravograph.us/engraving-machines/documents/Copy_Type.pdf

Copy holding slides

Copy type Blank size	Slide length	Part No.
5/8"	18"	33095
1 1/4"	26.5"	33096
2 3/4"	26"	20116
Double groove adjustable	36"	33123

Computerized Ring Engraver   Part No. 30750

The IM4RM is designed for efficient engraving on the inside of rings.

Capable of engraving multiple lines of text and logos, and handles ring diameters from .5" to .95" (13 mm to 24 mm)

Replacement diamond insert	28187

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MACHINES

ROTARY MACHINES
ENGRAVE ANYTHING FROM PLASTIC TO STAINLESS STEEL

M20 DIAMOND

Designed for engraving on flat objects such as trophy plates, luggage tags, small gifts, badges, leather gifts, pet tags and jewelry.

M20 3 AXIS

Designed for engraving on flat objects such as trophy plates, luggage tags, small gifts, badges, leather gifts, pet tags and jewelry.

M20 4 AXIS

Quickly change over from engraving on flat objects to engraving on cylindrical objects. Designed for engraving pens, small gifts, flat, round and cylindrical objects, as well as jewelry.

M20 JEWEL

The all-in-one jewelry engraving solution designed for engraving flat objects like watches, bracelets, necklaces and small gifts. **Efficiently engraves the inside and outside of rings.**

Upgrade with QuickPix software for the ability to engrave photos.

M20 PIX

The photo engraver ideal for metallic gift items such as lighters, key chains and gift boxes.

Designed for metallic medals, pendants and jewelry items. Specially designed for picture and text engraving on gold, silver, copper, platinum, stainless steel, etc.

All M20 series machines
- Completely self-contained in a 12" x 13" x 12" unit — aesthetic, quiet & portable, weighing under 25 lbs.
- Everything you need — engraving machine, software, fonts, tools, accessories and tutorial.
- Self-centering vise — for easy clamping and positioning of objects.
- Depth nose — allowing for consistent engraving, even on uneven surfaces.
- Integrated red spotting beam-setup and simulate your job before you engrave for error-free engraving with no measuring required.
- Integrated auto-Z — easy cutter setup.

Specifications
- Size: 12.2" x 13.4" x 12.2" (310 mm x 340 mm x 310 mm)
- Weight: approx. 18 lbs. (8 kg)
- Engraving area: 3.9" x 3.9" (100 mm x 100 mm)
  - In XL mode (no red spot beam – 4.9" x 3.9" (124 mm x 100 mm)
- Z stroke: 1.18" (30 mm)
- Brushless motor spindle
  - 1/8-in. (3.2 mm) hollow shaft
  - 19,200 rpm
  - 20W DC
  - Adjustable spindle pressure
- Tooling: 1/8" (3.17 mm)
- Self centering vise max. opening capacity: 4.7" (119 mm)

Which M20 is right for you?

				Engraving				Product Shapes			
Member	Engraving Area	Software	Diamond Drag	Rotating	Impact	Flat	Curved	Pen Cylindrical	Rings Inside	Rings Outside
3-Axis D		QuickGravoStyle™ *				♦	♦			
3-Axis	3.9 x 3.9 in. 100 x 100 mm)*	QuickGravoStyle™ *	♦			♦	♦			
4-Axis		QuickGravoStyle™ *	♦			♦	♦	♦		o
Jewel		QuickGravoStyle™ *	♦			♦	♦	o	♦	♦
Pix		QuickQuickPix		♦	♦	♦	♦	o		o

* Explorer   ♦ = Standard   O = Option

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ROTARY MACHINES
ENGRAVE ANYTHING FROM PLASTIC TO STAINLESS STEEL

M40 DEEP VICE

Economically engineered with a 12" x 8.2" engraving area. Includes red laser pointer for easy no measuring set-up and engraving verification.

Engraving area: 12" x 8.2" (305 mm x 210 mm)
Maximum holding capacity:
Vice: unlimited x 9.2" x 1.96" (234 mm x 50 mm)
Table: 13" x 10.2" x 1.4" (330 mm x 260 mm x 36 mm)
Machine dimensions: 22" W x 23.6"L x 12.6" H
                    (550 mm x 600mm x 320 mm)
Machine weight: 42 lb (19 kg)
Max spindle travel: 1.6" (40 mm)
Spindle rotation speed: 20,000 rpm fixed
Tool diameter: 11/64" (4.36 mm)
Spindle motor: 50W DC

M40 with OPTIONAL AUTO PLATE FEEDER

Machine: M40 or IS400

Auto Plate Feeder 48326

Auto Plate Feeder – Designed as an overhead saver. Produce large run plates unmanned. Just load the magazine with plates, and take care of other business while the Auto Plate Feeder automatically feeds a new plate after each engraved job. Each plate can have unique information by utilizing the variable list and matrix functions in GravoStyle™ software.

M40ABC

• Ideal for industrial tags, name badges and signs.
• Travelcase and full line of supplies for onsite marking.
• No PC needed comes with super simple software no technical background needed to operate.

AS EASY AS 1,2,3

Engraving area: 12" x 8.2" (305 mm x 210 mm)
Maximum holding capacity:
Table: 13" x 10.2" x 1.4" (330 mm x 260 mm x 36 mm)
Machine dimensions: 22" W x 23.6"L x 12.6" H
                    (550 mm x 600mm x 320 mm)
Machine weight: 42 lb (19 kg)
Max spindle travel: 1.6" (40 mm)
Spindle rotation speed: 20,000 rpm fixed
Tool diameter: 11/64" (4.36 mm)
Spindle motor: 50W DC

M40G

Versatile machine for quick change from flat to cylindrical work. 12" x 8.2" engraving area. Handles up to 6.7" diameters. Comes complete with coolant recirculation system, to prolong cutter life when engraving glass. Includes red laser pointer for easy no measuring set-up and engraving verification.

Engraving area: 12" x 8.2" (305 mm x 210 mm)
Maximum holding capacity:
Motorized vise: 17.7" x 9.4" x 7.5"
                (450 mm x 234 mm x 50mm)
Cylindrical diameter: min. .16" (4 mm) max. 6.7"
                     (170 mm)
Maximum tilt: +/- 10°
Machine dimensions: 29.5" W x 21" L x 22" H
                    (750 mm x540 mm x 570 mm)
Machine weight: 77 lb (35 kg)
Max spindle travel: 1.6 in. (40 mm)
Spindle rotation speed: 20,000 rpm fixed
Tool diameter: 11/64 in. (4.36 mm)
Spindle motor: 50W DC

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MACHINES

ROTARY MACHINES
ENGRAVE ANYTHING FROM PLASTIC TO STAINLESS STEEL

IS200 / IS200TX

3" x 9" engraving area. Optional TX base available for engraving cylindrical and large objects.

Engraving area: 8.9" x 3.1" (225 mm x 80 mm)
Maximum holding capacity:
Machine dimensions: 19.7" W x 17" L x 11.6" H
            (500 mm x 455 mm x 295 mm)
Machine weight: 44 lb (20 kg)
Max spindle travel: 0.6" (15 mm)
Spindle rotation speed: 17,000 rpm fixed
Tool diameter: 11/64" (4.36 mm)
Spindle motor: 20W DC

IS400

Industrial strength engraving machine designed to tackle your most difficult engraving applications. 8' x 12" engraving area.

Engraving area: 12" x 8.2" (305 mm x 210 mm)
Maximum holding capacity
Vise: unlimited 9" x 15" (229 mm x 381 mm)
Table: 13" x 10.2" x 1.4" (330 mm x 260mm x 36 mm)
Machine dimensions: 17.1" W x 24" L x 35.3" H
            (550 mm x 609 mm x 894 mm)
Machine weight: 93 lb (19 kg)
Max spindle travel: 1.6" (40 mm)
Spindle rotation speed: 20,000 rpm variable
Tool diameter: 11/64" (4.36 mm)
Collet Spindle motor: 70W DC
Optional Collet Spindle
Optional Collets: 1/8" (3.17 mm), 11/64". (4.36 mm)
            1/4" (6.35 mm)

IS400 VOLUME

Most versatile machine in range. Cylindrical and flat. 8" x 12" engraving area. 13.8" maximum diameter for cylindrical objects. Vise holds objects up to 15" thick. Includes red laser pointer for easy no measuring set-up and engraving verification.

Engraving area: 12" x 8.2" (305 mm x 210 mm)
Maximum holding capacity
Vise: unlimited x 9" x 15" (229mm x 381 mm)
Table: 13" x 10.2" x 1.4" (330 mm x 260 mm x 36 mm)
Cylindrical: Min: .8" (20 mm) Max: 13.8". (350 mm)
Max. object weight: 44lbs (20kg)
Machine dimensions: 35.4" W x 24.2"L x 33 in. H
            (900 mm x 615 mm x 840 mm)
Machine weight: 198 lb (90 kg)
Max spindle travel: 1.6" (40 mm)
Spindle rotation speed: 20,000 rpm variable
Tool diameter: 11/64". (4.36 mm)
Optional Collet Spindle
Optional Collets: 1/8" (3.17 mm), 11/64". (4.36 mm)
            1/4" (6.35 mm)
Spindle motor: 70W DC

Laureline

JEWELRY CUTOUT ENGRAVING TIPS

Machine: IS400 or IS400 Volume
Accessories needed:
- 47477 **Integrated 150W high frequency spindle** (60,000RPM) includes frequency converter, spindle, floating nose kit and 1/8" standard collet.
- 52180 **1/8" Carbide Stencil cutter** 2" shaft
- 32819 **Engravolube**
- 23520 **IS400 T-Slot table**
- 36213 **Double-sided film tape**
- **GravoStyle™ Discovery to Graphic upgrade**

When cutting 1 mm thick silver, you can cut through in 1 pass. With a Z down feed rate of .015 ips using a dwell of .2 ips, allowing the cutter to pierce the material before moving on the X,Y axis. The X,Y feed rate will be .015 ips. Use Engravolube as a lubricant to extend cutter life, and to achieve the cleanest cut possible. When cutting thicker or harder materials, the feed rate will need to be reduced or multiple tool passes and depths can be added to achieve a clean cut. Film tape placed under the material reduces vibration near the end of the cutout. A collet spindle is required for milling applications. The collet spindle grips the cutter near its tip, reducing tool chatter and vibration.

ROTARY MACHINES
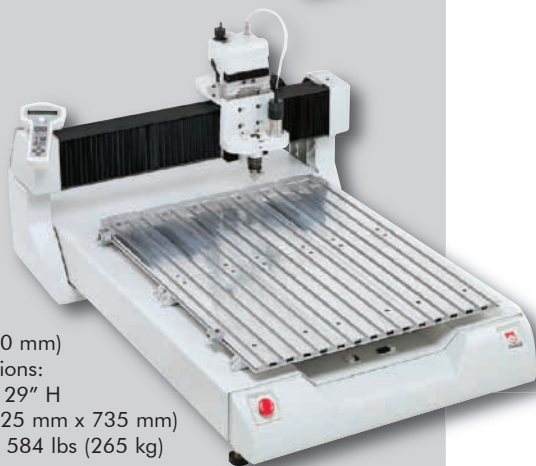## ENGRAVE ANYTHING FROM PLASTIC TO STAINLESS STEEL

IS7000

Engraving area:
24" x 32" (610 mm x 815 mm)
Machine dimensions:
43" W x 56" L x 29" H
(1,093 mm x 1,420 mm x 735 mm)
Machine weight: 485 lbs (220 kg)

IS8000

Engraving area:
24" x 48"
(610 mm x 1,220 mm)
Machine dimensions:
43" W x 72" L x 29" H
(1093 mm x 1,825 mm x 735 mm)
Machine weight: 584 lbs (265 kg)

IS900

Features
• 90 Watt Spindle and 200 Watt Spindle

Engraving area: 25" x 17" (635 mm x 432 mm)
Machine dimensions: 39.8" W x 32.5" L x 23.7" H
(1,012 mm x 825 mm x 603 mm)
Machine weight: 198 lbs (90 kg)

NOTE: Numerous options available to meet the needs of professionals in the areas of engraving and cutting, vise, table, cylindrical, maximum object weight, maximum spindle rotation speed, tool diameter, optional spindle motor and optional categories. Suitable for legend plates, part identification, control panels, ADA signage and large signage. Accessories include a complete range of spindles, cylindrical attachments and chip collectors.

IS7000XP/8000XP

A fast, accurate and powerful large table engraving system offering reliability and quality for engraving and milling. Direct current X, Y and Z axis motors. Accessories include a range of spindles, clamping accessories and tools.

IS7000XP

Engraving area: 24" x 32" (610 mm x 815 mm)
Machine dimensions:
43" W x 56" L x 29" H (1,093 mm x 1,420 mm x 735 mm)
Machine weight: 507 lbs (230 kg)

IS8000XP

Engraving area: 24" x 48" (610 mm x 1,220 mm)
Machine dimensions:
43" W x 72" L x 29" H (1,093 mm x 1,825 mm x 735 mm)
Machine weight: 618 lbs (280 kg)

Includes
• 200W spindle motor
• Collet spindle
• GravoStyle™ Graphic level

Auto tool changer

IS7000XP/8000XP MILLING

The XP milling system is a versatile CNC engraving/milling solution capable of producing a wide range of products from signage to front panels to 3D metal stamps. Now, both speed and accuracy are attainable due to direct current servo motors, pre-loaded ball bearing lead screws, solid cast construction and a high frequency spindle. Both small and large parts can be machined quickly and efficiently with the GravoStyle™ professional CAD/CAM engraving software provided.

A moderately priced solution, the XP milling system is a productive complement to a machine shop as a light-duty milling machine for machining smaller parts. The operating cost is lower than a full-size CNC machine.

Options include lubrication system, various size collets, brass tool collars, cylindrical attachment, ADA Braille system, high performance chip collector, self-centering vises (standard & heavy duty).

IS7000 XP Milling	**49289**
IS8000 XP Milling	**49290**

XP milling machine package consists of:
• XP milling machine
• High freq spindle: 1KW, 60 KRPM with 1/8" collet
• 7-position automatic tool changer (ATC)
• Auto Z-ref
• Auto tool height offset sensor
• GravoStyle™ - Graphic Level full pack

Features
• Factory integrated components for reliable operation
• Full ATC support in GravoStyle™
• Air-driven pneumatic collet for automatic tool changing
• Powerful 1KW 60,000 rpm precision spindle sub-system

Applications
• 2D & 3D signs	• ADA signs
• Front panels	• Legend plates
• Metal dies & stamps	

Technical specs
HFS speed	5,000 – 60,000
Pneumatic unit air pressure	6 bar (90 psi)
HFS controller voltage	220-240 VAC, 4 A max

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MACHINES

LASER MACHINES

LS100 (power ranges from 35 watts - 40 watts)

Engraving area: 12" x 18" (305 mm x 457 mm)

Maximum holding capacity:

Table: 20" x 13" x 5.7" (506 mm x 330 mm x 145 mm)
Max object weight: 33 lbs (15 kg)

Cylindrical (optional): Min: 0.12" (3 mm) Max: 5.1" (130 mm)
Max object weight: 11lbs (5 kg)
Max length capacity: 11.4" (290 mm)

Machine dimensions: 30" W x 28.5" L x 17.3" H
(760 mm x 725 mm x 440 mm)

Machine weight: 95 lbs (43 kg)

LS100Ex (power ranges from 35 watts - 80 watts)

Engraving area: 12" x 24" (305 mm x 610 mm)

Maximum holding capacity:

Table: 29.1" x 13" x 5.7" (740 mm x 330 mm x 145 mm)
Max object weight: 44 lbs (20kg)

Cylindrical (optional): Min: 0.12" (3mm) Max: 4.6" (117 mm)
Max object weight: 11 lbs (5 kg)

Machine dimensions: 40" W x 28.5" L x 17.7" H
(1025 mm x 725 mm x 450 mm)

Machine weight: 198 lbs (90 kg)

LS900 (power ranges from 35 watts - 80 watts)

Machine dimensions: 37.2" x 42.5" x 31.9"
(945 mm x 1080 mm x 810 mm)

Machine weight: 375 lbs (170 kg)

Engraving area: 24" x 24" (610 mm x 610 mm)

Maximum holding capacity:

Table: 25.6" x 24.8" x 9.8" (650 mm x 630 mm x 250 mm)
Max object weight: 55 lbs (25kg)

Cylindrical (optional): Min: 0.12" (3 mm) Max: 7.8" (200 mm)
Max object weight: 22 lbs (10 kg)
Max length capacity: 15" (380 mm)

LS900XP (speeds up to 150" sec.)

Machine dimensions: 37.2" x 42.5" x 31.9"
(945 mm x 1080 mm x 810 mm)

Machine weight: 374 lbs (170 kg)

Engraving area: 24" x 24" (610 mm x 610 mm)

Maximum holding capacity:

Table: 25.6" x 24.8" x 9.8" (650 mm x 630 mm x 250 mm)
Max object weight: 55 lbs (25kg)

Cylindrical (optional): Min: 0.12" (3 mm) Max: 7.8" (200 mm)
Max object weight: 22 lbs (10 kg)
Max length capacity: 15" (380 mm)

- Our laser machines are easy to use, and suitable for the first time user with a limited budget, or the experienced user with mid to high volume requirements. Excellent for large applications and high volume.

- Suitable for applications such as name tags, key chains, paper products, plaques, rubber stamps, name plates, signage, wooden items, trophy plates, TherMark processing, glass and crystal, thick acrylic cutting, direct part marking, objects requiring rotation and more!

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YAG200 Galvo Laser

A compact UID compliant trace-ability solution for high speed marking on metal, plastics, coated materials and ceramics.

Marking area: depending on lens

    2.6" (65 mm) with an F100
    4.3" (110 mm) with an F160
    7.1" (180 mm) with an F254

Cylindrical (optional): Max: 9.8"
              (250 mm)

Machine dimensions:
    23.2" W x 32.6" H x 31.7" D
    (590 mm x 827 mm x 806 mm)

Machine weight: 165 lbs (70 kg)

Motorized 2-axis, Class 1 enclosure

Fiber100 - Fiber200 Galvo Laser

A compact solution for personalization, UID compliant traceability, and direct part marking.

Marking areas: depending on lens
    2.6" (65 mm) with an F100
    4.3" (110 mm) with an F160
    7.1" (180 mm) with an F254

Cylindrical (optional): Max: 9.8"
              (250 mm)

Machine dimensions:
    23.2" W x 32.6" H x 31.7" D
    (590 mm x 827 mm x 806 mm)

Machine weight: 165 lbs (70 kg)

Motorized 2-axis, Class 1 enclosure
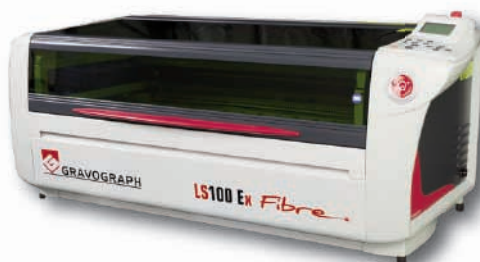
LS100Ex Gantry Fiber Laser

Machine dimensions: 40.3" x 28.5" x 17.7" | (1025 mm x 725 mm x 450 mm)

Machine weight: 165 lbs (75 kg)

Engraving area: 24" x 12" (610 mm x 305 mm)

Maximum holding capacity:

    Table: 29.9" x 13" x 9.8" (760 mm x 330 mm x 250 mm) | Max object weight: 44 lbs (20kg)

    Cylindrical (optional): Min: 0.12" (3 mm) Max: 7.8" (200 mm) |Max object weight: 22 lbs (10 kg)
                   Max length capacity: 21" (550 mm)

# LASER MACHINE ACCESSORIES

LS100 & LS100Ex
Exhaust Units

LE120HP integrated exhaust for LS100	49276
LE140HP integrated exhaust for LS100	49272
LE150HP integrated exhaust for LS100Ex	50106
Prefilter for LE140HP (6 pleats)	49286
Prefilter for LE120HP (3 pleats)	49287
HEPA filter for LE120HP/140HP	49281
Carbon filter cartridge for LE140 (40 liter)	49282
Carbon filter cartridge for LE120 (20 liter)	49283
Carbon pad for LE120HP/140HP	49284
Active carbon bag for refillable cartridges LE120/140 (25 kg)	49285
Blower motor unfiltered exhaust unit for all lasers	45652

Accessories

Air assist - LS100 integrated air compressor for air assist	47191
Cutting table - LS floating pin cutting table (all lasers)	27352
Cutting table - LS100 12 x 18 honeycomb	47081
Cutting table - LS100Ex 12 x 24 honeycomb	61783
Exhaust coupling 4" - 2" (100 mm - 50 mm)	29309
Exhaust coupling 4"- 4.9" (100 mm - 125 mm)	29311
Exhaust coupling 4"- 4" (100 mm - 100 mm) - (Incl. std with machine)	29310
Lens - 1.5" focal length (LS100)	47082
Lens - 2.0" focal length (LS100) incl std	47200
Lens - 2.5" focal length (LS100/900)	27379
Lens - 3.5" focal length (LS100/900)	27381
Lens - 4.0" focal length (LS100/900)	27382
LS air tube fitting adaptor (4 mm - 1/4" shop air fitting)	49500
Lens cleaning paper - 50 sheets / package	30859
Optical cleaning fluid - 1 3/4 oz bottle for CO2 only	30858
Rotary attachment w/tilt and cone kit (LS100)	47000
Rotary attachment w/tilt and cone kit (LS100EX)	49703
Vacuum table LS100Ex	49705
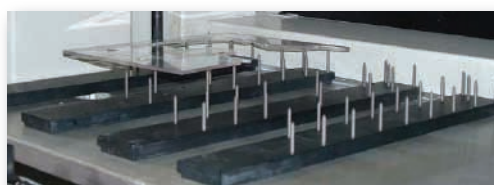
LS900
Exhaust Systems

Blower motor unfiltered exhaust unit for all lasers	45652
Integrated exhaust	39145

Accessories

Base - floor mounted LS900	29255
Cutting table - LS900 24 x 24 honeycomb cutting table	50012
Cutting table - LS floating pin cutting table (all lasers)	27352
Exhaust coupling 4" - 2" (100 mm-50 mm)	29309
Exhaust coupling 4" - 4.9" (100 mm - 125 mm)	29311
Exhaust coupling 4"- 4" (100 mm-100 mm) - (Incl. std with machine)	29310
LS air tube fitting adaptor (4 mm - 1/4" shop air fitting)	49500
Lens - 1.5" focal length (LS900)	29257
Lens - 2.0" focal length (LS900) incl std	27377
Lens - 2.5" focal length (LS100/900)	27379
Lens - 3.5" focal length (LS100/900)	27381
Lens - 4.0" focal length (LS100/900)	27382
Lens cleaning paper - 50 sheets / package	30859
Optical cleaning fluid - 1 3/4 oz bottle	30858
Rotary attachment w/tilt for LS900	42062
Air assist	29256

Yag and Fiber Accessories

YAG/FIBER cylindrical attachment	57381
YAG/FIBER Focusing diode	57262

Honeycomb cutting table

LS pin table

LS100Ex with optional integrated exhaust

Go online for the most up-to-date catalogs - Materials, Engravables, Fonts...
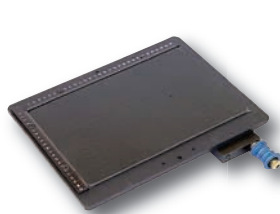
107

ACCESSORIES

ROTARY MACHINE ACCESSORIES

Professional High Volume Collector

High performance chip collector

Vacuum tables

Compact chip collector

Large cone kit

CHIP REMOVAL SYSTEMS

Compact Chip Collector with auto on/off for M20/M40 series	47645
Professional High Volume Chip Collector with auto on/off & 1.5, 3.3, 8 mm noses	49265
Replacement Bag for Professional High Volume Chip Collector	49092
High Performance Chip Collectors	
• for top load 11/64 spindle (with 8 mm nose for cutter tip sizes to 0.171)	31370
• for collet spindle with nozzle (with 8 mm nose)	32348
• for collet spindle with nozzle (with 3.3 mm nose)	32350
• for collet spindle with nozzle (with 1.5 mm nose)	32352
Replacement Filters for High Performance Chip Collectors	
• Filter bags (5-pack) for High Performance Chip Collector	47568
• HEPA filter (option)	49114
Replacement filter bags for GAST	
• Paper filter bags - GAST chip col (qty 12)	16640
• Cloth filter bag - GAST chip col (qty 3)	16641

CYLINDRICAL ACCESSORIES

M20 JEWEL Pen Holder Cylindrical Kit OPTION	48691
M20 Ring holding device for outside ring engraving	49514
M20 Ring holding device + Tailstock	49811
M40 Cylindrical Attachment	46676
M40 Pen Attachment	47765
IS200 Pen Attachment (0.6 in - 15 mm (also includes Electronic Board - Pre-MEBP)	22865
IS400 Cylindrical Attachment - MEPB	47770
IS400 Cylindrical Attachment - Pre-MEPB (requires Electronic Board)	23514
IS400 Pen Attachment - MEPB	47766
IS400/IS700 Pen attachment - Pre MEPB (requires Electronic Board)	23519
LT Pen Attachment Kit - Pre-MEPB (requires electronic board and standard vice)	32261
LT Pen Attachment Kit - MEPB - requires 47739 extension cable	47766
MiniDIN Cable Extension for LT Pen Attachment	47739

XP Cylindrical Attachment for older v1 XP systems	27606
XP Cylindrical Attachment for new systems, includes electronic board kit. (consult factory for part # for use with older XP systems)	27607
Electronic Board Kit (not required with MEPB controller)	23554
IS400V Glass Engraving Kit	32195
IS400 TO IS 400 VOLUME UPGRADE (NON-MEPB) Includes volume base, vol cyl att, Electronic Board Kit, cones & on-site labor.	48692
IS400 TO IS400 VOLUME UPGRADE (MEPB) Includes volume base, vol cyl att., cones & on-site labor.	48693
Chuck 13.75 inches (IS400V)	23527
Chuck - 3-Jaw - Outer Adjustment Ring (IS400)	27161
Chuck - Otelo Heavy Duty Precision Chuck (IS400 + LT)	22625
Cones - IS400V Large cone kit, 6"M, 8.5"M, 11"M, 14"M	23570
Cones - IS400V Small cone kit, 2.5"F, 3"M, 4"F, 4"M, 4.7"M	23571

ENGRAVING LUBRICANTS

Lubricant - EngravoLube (8 oz)	32819
Lubricant - Synthetic Coolant (mix with 1 gal water) - for M40Gift, IS400 Gift & LT	32863
Lubrication kit (LT)	31703

LARGE TABLE STANDS

IS7000 (& XP) Engraver Stand	23643
IS8000 (& XP) Engraver Stand	23644
IS900 Engraver Stand	62220
IS400 Volume Engraver Stand	23528
Castors for IS900 Engraver Stand (each)	15336

TABLE OPTIONS

IS400 T-Slot Table	23520
IS400 Vacuum Table & mat (without pump)	32240
IS400 Vacuum Table & mat (with pump)	32239
IS400 Vacuum Table rubber Replacement Mat	23501
IS7000 / 8000 Standard Self-centering vise	23648
IS7000 / 8000 Heavy Duty Self-centering Vise	23649
IS900 Vise	61329
Quick-connect toggle clamp for T-Slot Tables	22243
Long clamp with T-nut (set of 2)	23763
Long clamp with Quick-nut (set of 2)	23764
Back clamp (set of 2)	23765
Left clamp w spring (set of 2)	23762
Heavy-duty clamp for fixing metallic materials, black (1 ea)	22294

REPLACEMENT BELTS

IS200 Spindle motor belt	13457
IS400 Spindle motor belt	14246
IS700 Spindle Motor belt (lower)	11446
IS700 Spindle Motor belt (upper)	32610
IS900 Std Spindle Belt	55016
IS900 Notched Spindle Belt	54961
ISx000 Spindle Motor belt (90W motor)	14588
ISx000 & XP Spindle Motor belt (200W motor)	14643
ISx000 X-Axis belt	14547
ISx000 & XP Y-Axis belt	14593
ISx000 Z-Axis belt	14564
ISx000XP X-Axis belt	14841
ISx000XP Z-Axis belt	14856

GRAVOGRIP MAT

Specifically designed for computerized engraving systems allowing highly accurate engraving on multiple materials

Gravogrip replacement (8 x 12") with holes for M40 vise pins	46934
• Gravogrip - 12 x 12	32262
• Gravogrip - 12 x 24	32263
• Gravogrip - 24 x 24	32264
• Gravogrip - 24 x 48	26528

MISC

Relay kit box for accessory such as chip collector (10A capacity)	23518
Relay box adaptor cord	32235
Clear plastic flexible ruler	10184

SPINDLES

Spindle - Heavy Duty Diamond spindle with insert, non-rotating	22224
1/8 Dia. Insert for Heavy-Duty Fixed Diamond Spindle - Length 1"	33827
1/8 Dia. Insert for IM4RM & Manual Inside Ring Engr - Len 5/16"	28187
1/8 Dia. Insert for M20D, M20Pix - Length 7/16"	33825
Wrench for diamond insert	33009
Spindle - Collet Spindle only (does not include collet)	14763
Spindle - Short Collet (1/4")	23694
Spindle - Short Collet (1/8")	14721
Spindle - Short Collet (11/64")	23698
Spindle - Standard Top-Load Spindle (11/64")	20471
200W Spindle Motor Booster Kit for LT (Included standard on XP)	23652
Preset Cutter Knob, not threaded (use to preset tool offsets on M40 & Collet Spindle)	22740

Integrated 150W High Frequency Spindle (60Krpm) includes Frequency converter, spindle, floating nose kit and 1/8" standard collet.

ORDER CABLE KIT (below) for your machine	47477
• External Cable Kit for IS400 [non-MEPB]	47741
• External Cable Kit for IS400 MEPB	47746
• External Cable Kit for ISx000 [non-MEPB]	47743
• External Cable Kit for ISx000 MEPB	47744
• External Cable Kit for ISx000XP	47745
3.17 mm [1/8"] Collet (included standard)	47413
3.17 mm [1/8"] Extended Collet – necessary when using a chip collector nozzle	47452
2.00 mm [0.079"] Collet	48050
3.00 mm [0.118"] Collet	48065
4.00 mm [0.157"] Collet	48066

1/8" carbide cutter for high speed applications: 0.030" tip, 1.5" length, 30° cutting angle.

Other tip sizes & cutting angles are available by special order	33845

AUTOMATIC PLATE FEEDER

Available for the IS400, M40, M40 G, LS100, and LS100Ex

LASER

ROTARY

DIGITAL CALIPER

6"/150 mm range. Large and clear LCD readout. Power on/off. Zero setting at any position. Inch/mm switch. Data output. Stainless steel. Includes two 1.5V button batteries which are easy to replace   52174

LARGE TABLE ROUTER ACCESSORY

The router motor is a 2.25 HP, 12A motor that cuts smoothly and quickly through acrylic, wood, MDF, PVC, Signform and other non-ferrous materials   42376

Machine travel case

MACHINE TRAVEL CASES

M20 travel case: ATA approved, heavy-duty tote design, 2 catches, 1 handle, Lift off lid, 1" foam, retractable handle, recessed castors (2 - 3 wks ARO)   49268

M40DV travel case: ATA approved, heavy-duty tote design, 4 catches, 4 handle, Lift off lid, 1.5" foam, retractable handle, recessed castors (4 - 6 wks ARO) Stores accessories   49267

MACHINE TRAVEL CASES

M40G travel case: ATA approved, heavy-duty tote design, 4 catches, 4 handle, lift off lid, 1.5" foam, retractable handle, recessed castors, 135 lbs gross wt (4 - 6 wks ARO). Stores accessories without laptop compartment   49266

M40G travel case: ATA approved, heavy-duty tote design, 4 catches, 4 handle, Lift off lid, 1.5" foam, retractable handle, recessed castors, 135.5 lbs gross wt (4-6 wks ARO). Stores accessories with laptop compartment. Dimensions: 34.5 x 28.5 x 26H   49768

GravoStyle™/LaserStyle™ Software

PROFESSIONAL CAD/CAM ENGRAVING SOFTWARE FOR ROTARY AND LASER ENGRAVERS

GravoStyle™

Graphic
Unleash Your Creativity

Discovery Max
Productivity Package

Industry
Power, Precision & Productivity

Discovery
Drive Laser & Rotary Technology

Explorer
Essential Lettering Capabilities

LaserStyle™

Graphic
Unleash Your Creativity

Industry
Power, Precision & Productivity

Discovery
Drive Laser & Rotary Technology

GravoStyle™ is the first **multi-technology software** in the engraving industry – engineered specifically for engravers. The synergy between GravoStyle™ software and the machine enables you to realize your equipment's full engraving potential, whatever technology you use.

GravoStyle™ professional engraving software is designed with the **capabilities to evolve as your needs grow**: it can rise to the challenge of your most complex designs. With multiple levels and options to improve your engraving productivity, you pay only for the functionality you need, when you need it. Pick and choose from a range of options such as photo editing and 2.5D engraving, to enable you to deal with custom requests.

GravoStyle™ is also versatile – able to drive **rotary, YAG, Fiber, and CO2** laser engraving machines.. No matter what material you are engraving now or in the future, Gravograph has the solution to meet your needs. Just one software for four perfectly integrated tochnologies: Rotary, YAG, Fiber, and CO2 laser machines – no need for training on 3 different softwares.

Explorer, Discovery, Industry, Discovery Max and Graphic Levels
For use with all Gravograph engraving machines.
GravoStyle™ engraving software is designed with the professional engraver in mind. Comprehensive text, graphics and layout capabilities designed for efficient operations of both rotary and laser machines – the industry's first! Complete with **WYSIWIRE** –

What **Y**ou **S**ee **I**s **W**hat **Y**ou **R**eally **E**ngrave, Ensuring A Proper Cutter Selection Before Running A Job.

Features of GravoStyle™ Software
- Windows XP, Vista and Windows 7 operating systems
- Point-and-shoot: area, width, center, arc, curve, multi-rectangles
- Optimized for engraving productivity
- Proprietary, optimized engraving fonts
- Easier to use than general purpose software
- Manual and automatic composition modes

- Add graphics and logos to your jobs – powerful import and export all common file formats – DXF, EPS, BMP, GIF, HPGL, JPG, PNG, TIF, WMF.
- Copy and paste clipboard between Corel and GS (WMF, EMF – bitmap and vector)
- Compatible with most rotary and laser engravers currently manufactured by other companies
- CMX file compatibility with Corel

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Outside the continental US call +1.770.623.0331

GravoStyle™/LaserStyle™ Software

Visit us online for the latest GravoStyle™/LaserStyle™ product offerings.

- Copy and paste between excel, word, and GravoStyle™
- Add graphics and logos to your job
    - Symbol library – predefined or your own – save vector, bitmap, dials/scales or filled with tool path
    - Powerful tools for object manipulation
        - Adding/editing
        - Combining
        - Distorting
        - Aligning
        - Duplicating
        - Measuring
        - Rotating and stretching
        - Inside/outside offsets
- Scanning, vectorizing and cleanup
    - Interfaces directly with your scanner
    - Versatile vectorization capabilities
    - Powerful, easy to use cleanup tools
    - Point and node editing
- Matrix, variable list of names (international management), serialization
- Grade 2 ADA Compliant Braille
    - Raster Braille (drill and beads)
    - Routed Braille
    - Braille automation
        - Hole diameter and depth
        - Spacing
    - Lower cases management
- Comprehensive text capabilities
    - Automatic composition mode
    - Extensive font selection (True Type & Gravograph Engineered Fonts)
    - Character and line sizing and spacing
    - Special text functions
        - Text in a box
        - Text on a line
        - Vertical text
        - Text on an arc
        - Spell check
        - Text in columns
        - Find and replace text / font / size
        - Predictive text input
        - Mirror text
- Filling Toolpath Generation & Visualization
    - Quick and easy with Toolpath by color
        - Simple & quick 2D filling
        - Colored areas define different toolpaths
    - Preview
        - WYSIWIRE – What you see is what you really engrave – preview final appearance
    - Full Function Tool Library
    - Advanced toolpath CAM module
- Special laser features
    - Laser color control manager
        - Pen and brush (hatching) for design effects
        - White color management
    - Lasering Dialog
        - Automatic plate size

- Saved profiles
- Multiplate jobs
- Calibration to find the right lasering parameters easily
- Integrated Driver
    - Job parameters saved with job
    - Define width of stroked fonts
    - Dynamic focal adjust in multi-pass
- Rubber Stamp Wizard
    - Based on list of variables
    - Automatic nesting
    - Cutting in cutting for dating stamps
    - Saves time, material and money
- Photolase Wizard
    - From picture to realization
    - Minimize trial and error
    - Save time and money
    - Add value to items marking significant events
- Tangential Entry / exit for perfect cutting
- Lasering preview
- Inlay wizard for easy marquetry
- Cylinder attachment quick positioning by symmetrical axis
- Job Templates
    - Set up standard jobs for your shop
    - Maintains all job parameters
    - Add custom notes
- Part Nesting
    - Optimizes usage of cut out material
    - Reduces wasted material and saves money
    - Fit parts to plate or object
- Favorites Toolbar
    - All your most used icons in one place
- Computip
    - A built-in utility to suggest the proper tool for your application
- Job Timer
    - Keeps track of job creation time
    - Displayed on edit screen & stored with job in notes/information
- Tool Simulation
    - Quickly determine if selected tool will fit into an area at a certain depth
    - Useful when using "Toolpath by color" 2D Fill
- Powerful Measurement Tools
    - Area
    - Perimeter
    - Dimensions
    - Angles
    - Bounding Box
        - Quickly determine limits and extents of selected objects
        - Useful for alignment of irregular objects
- Barcodes
    - Wizard driven
    - Quick and simple
    - Integrated into GS for rotary and laser engraving
    - Linear: EAN, UPC, Code39, Code128, 2 of 5, UPCA

- 2D: Data matrix
- UID ("Unique Identification") is a marking program used by the Department of Defense in the US for the tracking of tangible assets through their useful life
- Help aids and ease-of-use features
  - F1 contect sensitive help/manual
  - Many guided wizards
  - Animated help
  - Pop-up tool tips
  - Automatic tool tips
  - Automatic tool bars
  - Status bar
  - Shortcuts can be changed
  - Integrated spell checker in several languages
  - Display contour order and engraving direction arrows
  - Font selection shows selected text in font preview
  - Large descriptive fly-out for CAM toolpath
  - Mouse middle button programming
  - Post-it type note for each job
  - Calculates optimal number of plates that can be engraved based on plate orientation
  - Open file dialog shows thumbnail & notes
  - Shows important information about your job setup based on your settings
  - Floating origin saved with job
    - Saves floating center and floating corner origins
- Saves origins for all machines defined in job
- Provides increased automation when using custom fixtures
- Reduces errors since operator no longer needs to key in data once saved with job
- Detection of loop, duplicate objects and overlapping points
  - These geometry problems can create toolpath errors
  - Loop eraser
  - Great time saver
- Job quotation and costing module
- Computer aided machining (CAM) module
  - Easy to use
  - No limitations
  - New tool data base
  - Can define your own groups
  - Hierarchical structures
  - Quickly generate and confirm toolpaths
  - Powerful simulation
  - Reduces errors, saves material, and increases production
- Long plate (X or Y, depending on the machine)
- Shadowing effect to make 3D effect based on 2D engraving
- Script / macrolanguage for automation
- Vectorial textures for design effect on any shape
- Advanced toolpath strategies (
 - $2^1/_2$ D
  - 3D Intaglio & Prismatic Letters

GravoStyle™ 3D CAD/CAM Software

3D CAD/CAM solutions for sign making, woodworking, 3D-engraving and embossing.
Powerful, yet easy to use, GravoStyle™ helps you convert your 2D artwork to 3-dimensions in no time. Packed with 2D features and 3D modeling tools, you will be able to win more business, thanks to GravoStyle™ wide range of tools such as :

- Parametric technology (unique)
- Sweeping wizards
- 3D texturing
- Realistic rendering
- Tool tester
- 3D-clay sculpting
- Male/female
- Grayscale to 3D (& vice-versa)
- Bas-relief enhancement tool
- Sculpted 3D plaques

- Surface tools (for free-form designs)
- Wrapping on 3D
- Duplication & distortion
- Celtic-type design tool
- Roughing, semi-roughing & finishing strategies
- 3D tool sequences
- Cutting tool creation wizard
- 3D video simulation
- … and lots more

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for more information**
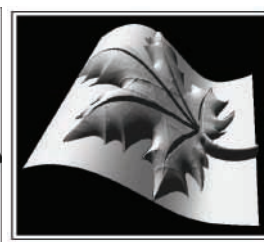
Developed with the latest technology, GravoStyle™ runs any CNC machine (milling centers, CNC routers, laser machines, waterjets) up to 4 axis. Its CAM module offers a wide range of machining strategies that addresses the challenges of the most exigent machinists.

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Dedicace™
Personalization at its finest

Patent Pending

When your machine is combined with the Dedicace™ solution, you will be equipped to provide your customers personalization at its finest. With the ability to engrave hand written sentiments and elegant engraves messages, your customers will be able to present a keepsake that takes the recipient's breath away.

Handwritten engraving with Dedicace™ Solution. A unique personalization service, adding sentimental value and thought to each gift.

Your hands share your heart.

Dedicace By GP

- Select your shape
- Write or draw your personal message
- Preview the inscription on screen
- Engrave
- Cherish

THE GRAVOSTORE

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Our online storefront created to address the demands of your busy life. Built by the industry's leading total engraving solutions provider.

In the GravoStore, you can browse and purchase:

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:: Engraving materials
:: Signage
:: Cutters, characters & fonts
:: Engraving accessories

:: Ordering 24/7
:: Product photos & graphics
:: Search by items # or keywords
:: Order tracking
:: Order history

Visit www.gravostore.com for all your engraving needs.

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MANUFACTURER-DIRECT SERVICE

**To complement our extensive product offerings,
we offer manufacturer-direct service. This service is complete
with equipment protection plans, training and customer support.**

Training

Engravers Academy, online or on-site

Basic Engraving –Learn the basic tools of GravoStyle™

Advanced Engraving – Learn the advanced tools of GravoStyle™ 98 and GravoStyle™.

Scan & Vectorize – Expand your possibilities with the power of GravoStyle™ 98 and GravoStyle™ scanning and vectorizing option.

Laser Engraving – Learn how to fully utilize your GravoStyle™ software to maximize the efficiency and productivity of your laser engraving machine.

iHelp: Internet Based Training

Through live interaction using the internet, our professional instructors will walk you through your favorite programs, covering tips and tools necessary to increase your productivity, creativity and knowledge.

On-site training

Receive one-on-one training on your premises by trained members of our staff.

Customized Training

Spend a few days with us at our fully equipped showroom or have us come to your location for hands-on experience with one of our corporate trainers. We will create specific solutions suitable to your needs. With everything at arm's reach (machines, accessories, materials, etc.) you can often streamline training and problem-solving processes in a shorter time period.

Customer Support

On Site Service Technical Support

Our toll free technical solution source is fully staffed 5 days per week, with extended hours to meet your needs.

Online Knowledge Base: Internet Based Training

Explore our online customer support center for self-help instructions on a range of topics. View tutorials to assist you in gaining a better understanding of topics ranging from simple to complex.

Depot Repair

Duluth, GA, Santa Fe Spring, CA and Ontario, CAN factory direct depot repair service.

Equipment Protection Plans

The Silver Plan

This plan covers travel, labor, all parts (excluding belts), and unlimited on-site visits including one preventive maintenance tune-up per year.

Bronze Protection Plan

Also known as the "Handyman Plan," you can receive any parts required for self-installation. All parts excluding belts are included. Customers also receive a 30% discount on a preventive maintenance tune-up during the contract period. Labor and travel are billed at 20% off the list price.

50/50 Protection Plan

Offers full protection with less risk. This plan covers all parts, travel and labor. A 50% payment is required upon establishment of the contract. The additional 50% is required only if a part or on-site visit by a technician is required within the one year contract period.

**For more information on any of the above, please call 1.800.843.7637
or visit www.gravograph.us**

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A global leader in the engraving and permanent marking industry, Gravograph's many subsidiaries and distributors/agents around the world offer a complete and worldwide engraving solution to their customers, coupled with unparalleled customer service and support.

GRAVOGRAPH

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