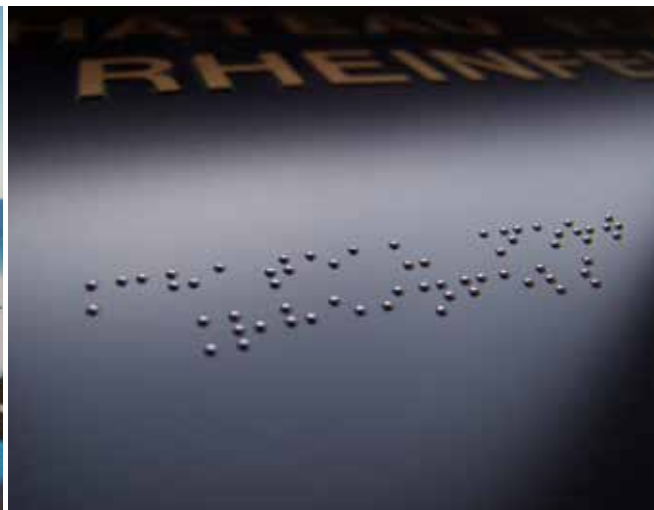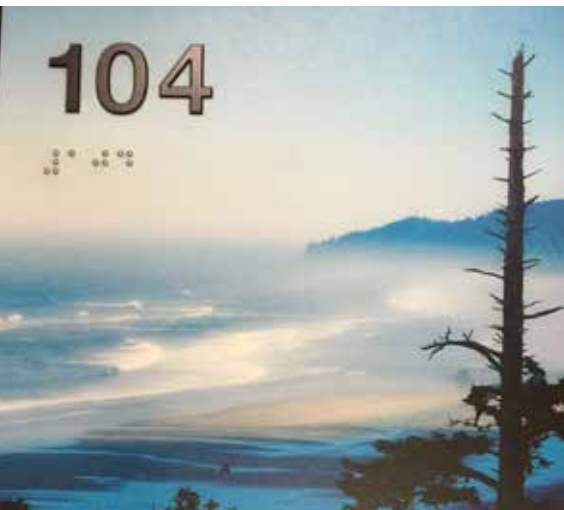# Gravotech

Increase your profits producing ADA compliant Braille signage

Both attractive and durable, the Raster™ method completes the look and feel of your signage project

ADA Signage Solutions Overview

www.gravotech.us

RASTER® BRAILLE BENEFITS:

- Easy to read, perfectly rounded, uniform Braille beads.
- Looks great in any material
- Fabrication is fast and easy
- Dome-shaped Raster® beads meet current ADA and ANSI guidelines
- Durable and vandal resistant

The Raster® Braille Method is a licensed and patented process by Accent Signage Systems, Inc.

(!) Gravotech Solutions

The Raster® Method of Braille is supported on Gravograph M40, IS400, IS900, and IS6000/7000/8000 series of engraving solutions by Gravotech.

Insist on the clean look of Raster® Braille

The Raster® Method has quickly become the preferred process for producing ADA compliant Braille. Fabrication is fast and easy. The perfectly rounded Braille beads have a clean uniform appearance. Raster® Braille can be used in almost any material, allowing greater flexibility in choice of material substrates as well as design options.

FEATURES:

- Raster® Braille meets all of the latest federal ADA guidelines for dot dimension, spacing height, and shape.
- Raster® Braille complies with ANSI A117.1
- Raster® Braille complies with California Title 24 standards.
- Raster® Braille is weatherproof in almost any environment.
- Raster® Braille is attractive in appearance and easy to read.

COLORS & MATERIALS:

Raster® beads are available in UV stable acrylic and metal. Use clear Raster® beads for practically invisible Braille, or use a contrasting color and the Braille becomes a design element. Raster® beads are available in the following materials and colors:

- Black acrylic
- White acrylic
- Clear acrylic
- Stainless steel
- Brass

5 EASY STEPS TO PRODUCE ADA SIGNS:

1. Apply Gravotac 1/32'' profile material with adhesive to substrate
2. Cut the pictogram and text
3. Weed away unused 1/32'' Gravotac profile material
4. Engraver drills Raster® Braille pockets
5. Machine inserts Raster® beads into the sign completing the process

Raster® Method Braille Process

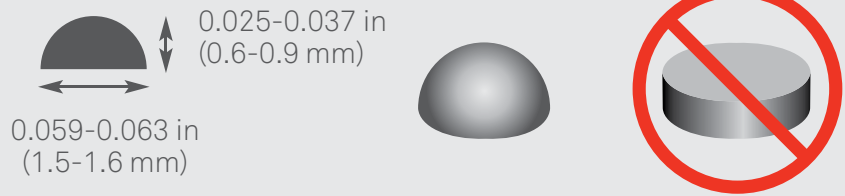Raster® Braille meets the most recent U.S.A. federal standards.

U.S.A. 2015 ADA BRAILLE STANDARDS:

Tactile characters must be accompanied by Grade 2 Braille.

- Braille shall have a domed or rounded shape.
- Braille shall be located below corresponding text.
- If text is multi-lined, Braille shall be placed below the entire text.
- Braille shall be separated by 3/8 inch (9 mm) minimum from tactile characters, raised borders or decorative elements.
- Braille is required to be lowercase. The indication of uppercase letter(s) shall only be used for proper nouns and names, individual letters of alphabet, initials, acronyms or before the first word of sentences.
- Dot Height: 0.025 - 0.037 inches (0.6 - 0.9 mm)
- Dot Base Diameter: 0.0590 - 0.063 inches (1.5 - 1.6 mm)
- Distance between any two dots in same cell, center to center: 0.9 - 0.1 inches (2.3 - 2.5 mm)
- Distance between corresponding dots in adjacent cells, center to center: 0.241 - 0.3 inches (6.1 - 7.6 mm)
- Distance between corresponding dots from one cell to the cell directly below, center to center: 0.395 - 0.4 inches (10 - 10.2 mm)
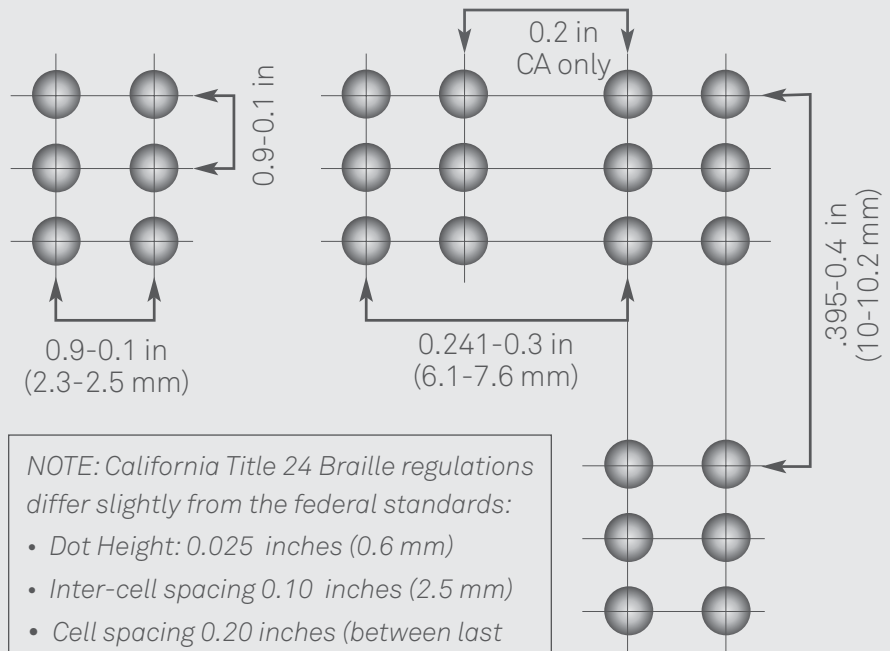
IMPORTANT CONSIDERATIONS:

When producing signs, the Braille message should accurately represent the tactile message. Spacing changes the meaning of letters and numbers. It is important to use GravoStyle™ software to accurately translate the braille. It is also very important to proofread the Braille translation to ensure accuracy.

0.025-0.037 in (0.6-0.9 mm)

0.059-0.063 in (1.5-1.6 mm)

Braille dots shall have a domed or rounded shape.

Braille is made up of cells. Each cell contains six dots; three on the left and three on the right. It is essential that the dots are uniform in size and in the appropriate position in order for the Braille reader to understand the message.

0.2 in CA only

0.9-0.1 in

0.9-0.1 in (2.3-2.5 mm)

0.241-0.3 in (6.1-7.6 mm)

.395-0.4 in (10-10.2 mm)

NOTE: California Title 24 Braille regulations differ slightly from the federal standards:
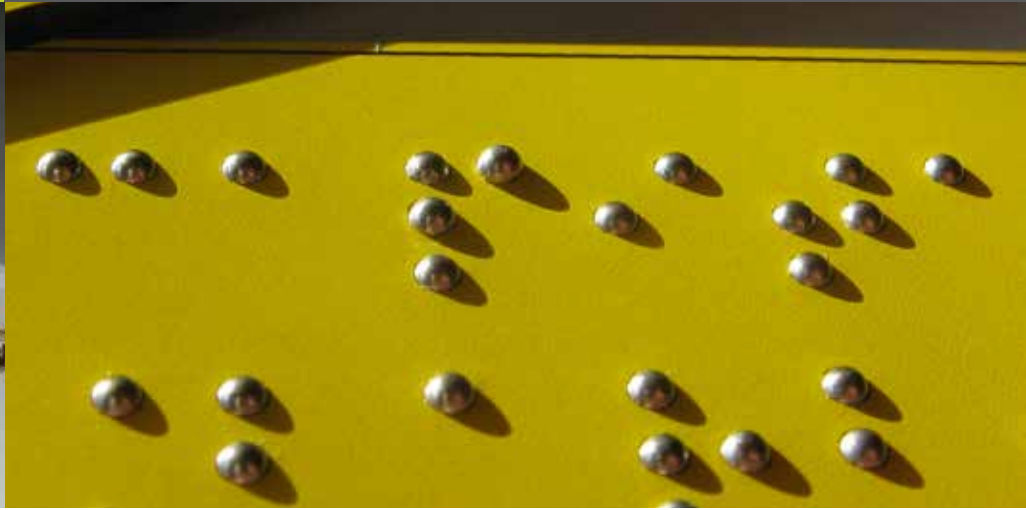
- *Dot Height: 0.025 inches (0.6 mm)*
- *Inter-cell spacing 0.10 inches (2.5 mm)*
- *Cell spacing 0.20 inches (between last row of dots in a cell to the first row if dots in the next cell)*

STANDARDS	Dot Shape	Dot Height	Dot Base Diameter	Inter-cell Spacing	Cell to cell Spacing
RASTER® BRAILLE MEETS THE LATEST U.S.A. STANDARDS					
2015 ADA (ADAAG)	✔	✔	✔	✔	✔
ANSI A 117.1	✔	✔	✔	✔	✔
California Title 24	✔	✔	✔	✔	✔

Raster® Braille complies with all current federal ADA standards (ADAAG), building code standards ANSI, as well as California Title 24 standards.

Get started today producing Raster® Braille

1. Sign a license agreement
2. Have a Gravotech routing/engraving solution that includes a GravoStyle™ translator and a single point drill function.
3. Purchase the Raster® Pen License Kit which includes everything you need to get started producing Raster® Braille.

RASTER® PEN LICENSE KIT INCLUDES:

*   Raster® Pen insertion device
*   Raster® License for using the patented Raster® Method
*   Special carbide Braille cutter for drilling Raster® holes
*   Special carbide Profile cutter for cutting tactile letters
*   10,000 acrylic UV stable Rasters® (clear, white, or black)
*   Weeding tool (for tactile letters)
*   Sign cleaning brush
*   "How To Create Great Looking Interior Signage" manual
*   CD ROM with ready to use sign layouts and more
*   Raster® Braille sign sample
*   High Impact styrene frame color selection key chain
*   Aluminum modular frame color and edge key chain
*   Organizer case for Kit contents
*   Braille insertion practice material
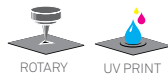*   Gravotac™ sample keychain

Use the following material to produce your beautiful ADA Signage.

Gravotac™ - A single layered material, available in 3 thicknesses and a variety of colors for interior or exterior use. Profile material is available with or without adhesive backing. This material is also great for UV printing, hot stamping and screen printing.

Gravotac™ Exterior (CO2, ROTARY, UV PRINT — 1-ply)

	0.8 mm (1/32")	1.6 mm (1/16")	3.2 mm (1/8")
clear	29918	29935	72083
exterior white	29919	29936	31237
almond	29921	29938	32295
red	29922	29939	31700
burgundy	29923	29940	31738
pine green	29927	29944	31837
teal	29933	29903	
azure blue	29928	29945	31406
silver	29931		
silver grey	29929	29946	32187
slate	29930	29947	32277
chocolate brown	29926	29943	31648
gold	29932		
black	29920	29937	31257

Gravotac™ Interior (ROTARY, UV PRINT — 1-ply)

	0.8 mm (1/32")	1.6 mm (1/16")	3.2 mm (1/8")
clear	32729		
bright white	37042	29879	31260
white	37033	29880	31236
almond	37070	29882	32294
yellow	24998	29883	
rust	32291	29884	32292
red	25001	29885	31699
burgundy	69711	29888	31728
tan	32726	29889	32727
taupe	37047	29890	31261
brown	31631	29891	
chocolate brown	37058	29892	31646
pine green	37060	29895	31836
metallic blue	37032	29896	31392
azure blue	37048	29897	31404
navy blue	69712	29898	31360
candlewick	37050	29899	31410
silver grey	69713	29900	32185
slate	37065	29901	32276
black	37037	29902	31256

MATERIALS TO BE ENGRAVED

Creativity and know-how, together with Gravotech's extensive range of materials, colors, thicknesses and qualities, will allow you to meet the ADA requirements of any signage application.

The various thicknesses available in the range will guarantee your compliance with local and regional legislation. The subtle use of the various materials will enable you to produce perfect:

- Lettering
- Icons and symbols
- Tactile drawings and reliefs as well as all other materials related to accessibility requirements

Gravotech Engraving Solutions

Gravograph M40

12.6"
22"   20"

Engraving area (in)	12" x 8.2"
Z stroke (in)	1.57"
Max Holding Capacity	9.2" x 1.57" x unlimited
Net weight (lbs)	40

Gravograph IS400

35.1"
17.1"   24"

Engraving area (in)	12" x 8.2"
Z stroke (in)	1.57"
Max Holding Capacity	9" x 4.4" x unlimited
Net weight (lbs)	93

Gravograph LS1000XP

31.5"   54"
45.7"
65.4"

* Machine stand comes standard

Lasering area (in)	48" x 24" (X & Y Axis pass through)
Z clearance (in)	11.8"
Power (W)	40 - 60 - 80 - 100 - 150
Net weight (lbs)	485

ADA SIGNAGE LASER SOLUTIONS

Gravotech lasers provide a fast and efficient way to cut tactile lettering for ADA signage. The new Print & Cut feature in Gravostyle™ allows you to completely cut your digitally printed signs in 4 easy steps.

The Gravograph LS1000XP by Gravotech has an engraving area of 24"x48" and speeds up to 157 in/sec. The unlimited X & Y pass through and ergonomic front loading door make working with large and bulky materials effortless.

GRAVOSTYLE™ SOFTWARE SOLUTION

GravoStyle™ offers a one of a kind braille add-on for Discovery level and above. Our Braille automation solution improves ADA signage production. The machine maintains the offset between the drill in the spindle and the bead insertion device combining the drilling & bead insertion into a single, effortless operation.

GravoStyle™ provides features and special functionalities meeting specific market needs for engraving, cutting, marking, ablating and annealing processes for CNC rotary and CO_2, YVO4 and fiber laser technologies. It is also designed to work together with your current 3rd-party design software while providing powerful engraving-specific features.
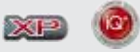
GravoStyle™

The UNIQUE SOFTWARE for LASER & ROTARY ENGRAVING MACHINES

Gravograph IS900

39.8" 23.7" 32.5"

17" x 25"
3.15"
17" x 3.15" x unlimited
198

Gravograph IS6000 • 7000 • 8000

- 45.7" x 45.3" x 37.8"
- 45.7" x 61.2" x 37.8"
- 45.7" x 77.2" x 37.8"

24" x 16" • 24" x 32" • 24" x 48"
3.15"
24" x 3.15" x unlimited
370 • 485 • 584

PROFILE   **RASTER DRILL**   **INLAY**

ADA SIGNAGE CUTTERS FROM GRAVOTECH

Profile:

The Profile cutter is used for cutting out tactile lettering and pictograms on the 1/32" profile material. As the material thickness is .032 and has adhesive, your cut depth is .035. This will ensure that you cut thru the adhesive and leave less debris when you weed the excess material.

Raster Drill:

The Raster® Braille cutter is parallel to give you straight sides on your drilled hole. The Raster® bead measures .060. When the bead is pushed in the hole past the half way point, the plastic will snap back and hold the bead in place. Drill depth is between .023 and .025. Dedicated cutters are available for soft plastics, rigid plastics and metals substrates, enhancing Raster® durability.

Inlay:

This cutter is used for making inlay lettering. The cut diameter is .040. The first part of the cutter will support a depth of .035. While the cut hole is parallel, the insert letter's top will be beveled to give you a profile on the letter.

ADDITIONAL ADA SIGNAGE TECHNIQUES

Gravograph Raster® Braille solutions enhance ADA sign fabrication on the following processes:

Thermoform - Produce clean accurate negatives plates that require no sanding before use.

Photopolymer - The Raster® Braille process installs perfectly domed and compliant braille elements on tactile signs produced using the photopolymer process.

Digital Print - Gravotech solutions can easily register and process digitally printed substrates. Add tactile and braille elements to complete the process.

OUR LEADING BRANDS

Since 1938, Gravotech brands have been global leaders in the design, manufacturing, sales and support of innovative solutions for engraving, marking and artistic modeling.

www.gravotech.us

GRAVOGRAPH

Gravograph, with over 150,000 machines installed worldwide, is a global leader of engraving and marking technologies for rotary CNC milling/engraving machines and CO_2 , YAG, Green and Fiber laser equipment, materials and supplies.

www.gravograph.us

Technifor

Technifor, with over 40,000 machines installed worldwide, a proven global supplier of industrial marking equipment and traceability solutions for in-line, standalone, portable and custom solutions.

www.technifor.us

Type 3

Type 3 has five separate but complementary software solutions: TypeEdit: for CNC mechanical machines, LaserType: for laser machines, 3DESIGN: the 3D artistic CAD solution, Type3 CAAV5 Based: dedicated to CATIA software.

www.type3.us

Sales

To purchase your own ADA Braille solution from Gravotech call or email:

1.800.843.7637
sales@us.gravotech.com

Training and support

Gravotech after-sale service is on hand to respond to your technical questions on the use of our solutions.
We also offer special braille training courses, web based workshops and phone sessions.

1.800.843.7637
askservice@us.gravotech.com

LIVE CHAT

now availavble on
www.gravograph.us

The Gravotech Group represents a worldwide network present in 30 countries with more than 900 employees working around the clock to provide customers with exceptional permanent marking solutions. As a global leader in durable marking technologies such as engraving, laser, dot-peen and scribing, we utilize our expertise to develop and market equipment, software and consumables for every application, from personalization to architectural signage and industrial part marking.

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