

# Benchtop Engravers

## Model: EGX-600/400

Table type	T slot	
Table size	610 (W) x 407 (D) mm (24 (W) x 16 (D) in.)	407 (W) x 305 (D) mm (16 (W) x 12 (D) in.)
Cutting area	610 (X) x 407 (Y) x 42.5 (Z) mm (24 (X) x 16 (Y) x 1-5/8 (Z) in.)	407 (X) x 305 (Y) x 42.5 (Z) mm (16 (X) x 12 (Y) x 1-5/8 (Z) in.)
Loadable workpiece thickness	Maximum 40 mm (1-9/16 in.)	
XYZ-axis motor	AC servo motors (DAC-FFP), 3-axis simultaneous control	
Feed rate	XY-axis: 0.5, 1 to 100 mm/s (0.02 in./s, 0.039 to 3.9 in./s) Z-axis: 0.5, 1 to 50 mm/s (0.02 in./s, 0.039 to 1.9 in./s)	
Acceleration	0.1 G, 0.05 G	
Software resolution	0.01 mm/step (0.00039 in./step)	
Mechanical resolution	XY-axis: 0.003 mm/step (0.00012 in./step) Z-axis: 0.0025 mm/step (0.000098 in./step)	
Spindle motor	Brushless DC motor, Maximum 72 W	
Spindle speed	8,000 to 30,000 rpm	
Tool chuck	Cutter holder (4.36 mm) and collet	
Positioning Accuracy	± 0.1 % of distance traveled or ± 0.1 mm (± 0.004 in.), whichever is greater (no-load operation)	
Repeatability	0.05 mm (0.002 in.) or less	
Interface	Parallel connector (Centronics-compliant), serial connector (RS-232C-compliant), Memory card slot (Compliance with Multi Media Card), expansion connector 1, expansion connector 2	
Buffer memory	2MB (replot buffer: 1.9MB)	
Instruction system	RML-1 (mode 1, mode 2)	
Power supply	AC 117 V, 230 V, 240 V ± 10 %, 50/60 Hz	
Power consumption	3.5 A at 117 V, 1.6 A at 230 V, 1.6 A at 240 V	
Acoustic noise level	No-load operation: 75 dB (A) or less standby: 45 dB (A) or less (According to ISO 7779)	
Dimensions (main unit)	995 (W) x 820 (D) x 521 (H) mm (39-3/16 (W) x 32-5/16 (D) x 20-1/2 (H) in.)	795 (W) x 719 (D) x 521 (H) mm (31-5/16 (W) x 28-5/16 (D) x 20-1/2 (H) in.)
Weight (main unit)	64 kg (141 lb.)	51 kg (112 lb.)
Operating environment	Temperature: 5 to 40 °C (41 to 104 °F) humidity: 35 to 80 % (no condensation)	
Accessories	Operation panel: 1, Operation-panel connector cable: 1, Power cord: 1, Depth regulator nose unit: 1, Solid collet: 1, Clamps: 4, Roland Software Package CD-ROM: 1, User's Manual: 1	

■ OPTIONS

Item	Model number	Description
Engraving cutters (for plastic)	ZEC-A4013	Cemented carbide dia. = 4.36 x 165 (L) x 0.127 (W)
	ZEC-A4025	Cemented carbide dia. = 4.36 x 165 (L) x 0.254 (W)
	ZEC-A4051	Cemented carbide dia. = 4.36 x 165 (L) x 0.508 (W)
	ZEC-A4076	Cemented carbide dia. = 4.36 x 165 (L) x 0.762 (W)
Engraving cutters (for aluminum or brass)	ZEC-A4013-BAL	Cemented carbide dia. = 4.36 x 165 (L) x 0.13 (W)
	ZEC-A4025-BAL	Cemented carbide dia. = 4.36 x 165 (L) x 0.25 (W)
Parallel engraving cutters (for plastic)	ZEC-A4150	Cemented carbide dia. = 4.36 x 165 (L) x 1.52 (W)
	ZEC-A4190	Cemented carbide dia. = 4.36 x 165 (L) x 1.91 (W)
	ZEC-A4230	Cemented carbide dia. = 4.36 x 165 (L) x 2.29 (W)
	ZEC-A4320	Cemented carbide dia. = 4.36 x 165 (L) x 3.175 (W)
	ZEC-A4380	Cemented carbide dia. = 4.36 x 165 (L) x 3.81 (W)
	ZEC-A4430	Cemented carbide dia. = 4.36 x 165 (L) x 4.34 (W)

Item	Model number	Description
Collets for end-mill	ZC-23	Diameter 6 mm, 5 mm, 4 mm, and 3 mm collets: 1 pc. each
	ZC-23-3	Diameter 3 mm collet: 1 pc.
	ZC-23-4	Diameter 4 mm collet: 1 pc.
	ZC-23-6	Diameter 6 mm collet: 1 pc.
	ZC-23-3175	Diameter 3.175 mm collet: 1 pc.
	ZC-23-635	Diameter 6.35 mm collet: 1 pc.
Collet for ZDC-A4000	ZC-E436	Diameter 4.36 mm collet: 1 pc.
Nose cone	ZDN-200	Inner diameter 2 mm, outer diameter 4.2 mm, for engraving text
Spindle unit	ZS-600	
Vacuum adapter	ZAD-600	
Adhesive sheet for securing material	AS-10	210 mm x 140 mm (8-1/4 in. x 5-1/2 in.), 10 sheets

Item	Model number	Description
Diamond engraving cutters	ZDC-A4000	Diamond dia. = 4.36 x 178 (L), only operates with the ZC-E436 collet
Square end-mill	ZHS-100	High speed steel dia. = 1 3 (ℓ) x 6 (d) x 50 (L) x 2NT
	ZHS-200	High speed steel dia. = 2 6 (ℓ) x 6 (d) x 50 (L) x 2NT
	ZHS-300	High speed steel dia. = 3 10 (ℓ) x 6 (d) x 50 (L) x 2NT
	ZHS-400	High speed steel dia. = 4 12 (ℓ) x 6 (d) x 50 (L) x 2NT
	ZHS-500	High speed steel dia. = 5 15 (ℓ) x 6 (d) x 55 (L) x 2NT
	ZHS-600	High speed steel dia. = 6 15 (ℓ) x 6 (d) x 55 (L) x 2NT
Ball end-mill	ZCB-150	Cemented carbide R1.5 25 (ℓ) x 2.4 (Lc) x 65 (L) x 6 (d) x 2NT
	ZCB-200	Cemented carbide R2 25 (ℓ) x 3.2 (Lc) x 70 (L) x 6 (d) x 2NT
	ZCB-300	Cemented carbide R3 30 (ℓ) x 4.8 (Lc) x 80 (L) x 6 (d) x 2NT

dia = flute diameter, R = flute radius, ℓ = flute length, Lc = blade length, L = overall length, d = shank diameter, NT = number of flute, unit = mm

**ISO 14001:2004 and ISO 9001:2000 Certified**

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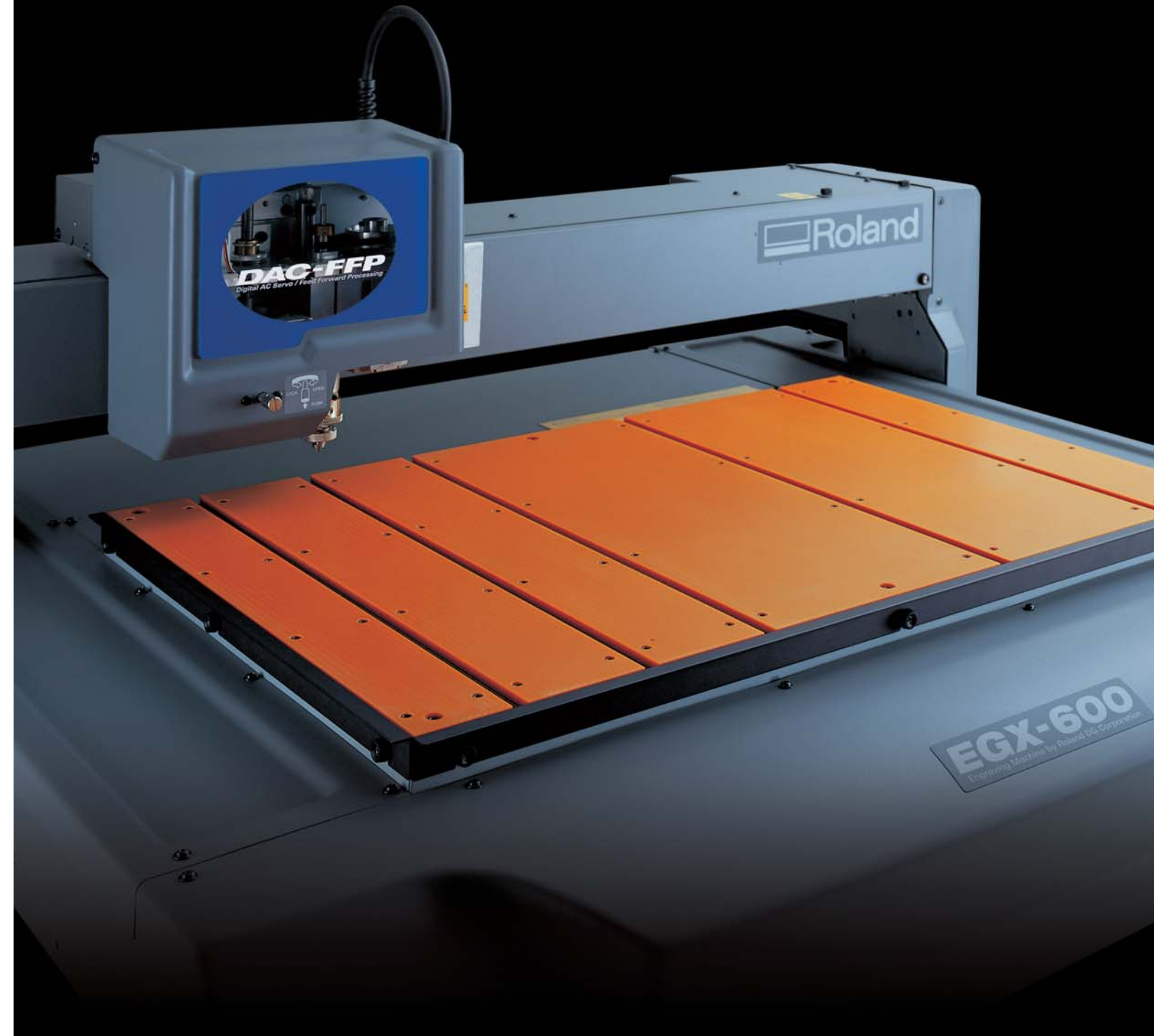
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Benchtop Engravers  
**EGX-600/400**

## Superb Quality, Value and Performance for Heavy-Duty Engraving

The EGX-600/400 benchtop engravers provide heavy-duty engraving power, speed and a host of features, making them versatile and easy-to-operate, professional tools. These computerized engravers enable you to produce a wide variety of applications including 3D reliefs for distinctive signs as well as name plates, awards and trophies, medallions, ADA signage, control panels and much more. A powerful suite of software is included.



Software : 3D Engrave



Software : Dr.Engrave



Software : Dr.Engrave

### High Speed and Accuracy with DAC-FFP

Feed Forward Processing (FFP) is an advanced controller technology that anticipates tool movement. The industry-first combination of FFP, belt drives, and digital AC Servo (DAC) brushless motors on the X, Y and Z axes results in unmatched precision, speed, reliability and energy efficiency. In addition to faster cutting, the high-speed spindle and brushless DC motor produce increased torque with less vibration. Spindle speed can be varied between 8,000 and 30,000 rpm for engraving a wide variety of materials, including wood, urethane foam, plastic, acrylic, and light metals such as brass and aluminum.



**DAC-FFP**  
 Digital AC Servo / Feed Forward Processing

### Computerized Engraving Made Easy

A removable MMC memory card\*1 can store files programmed on your computer and then be inserted directly into the EGX for engraving without using a PC. A separate teaching feature allows you to send operating commands directly from the control panel to the machine, also without using a PC. The commands can be saved in the built-in memory or on the removable MMC memory card. Multiple EGX's can also be linked together in a production line. For fast and simple set-up, an automatic surface detector determines Z-zero when the tip of the nose guard touches the material surface.\*2

\*1) Compatible with commercially available Multi Media Card™ or SD Memory Card. Note: You will also need a memory card writer to copy the files from your computer to the cards.

\*2) The automatic Z control works with the depth regulator nose cone is employed or when scribing, but not in teaching mode. The cutting-in depth and amount of cut-out are not set automatically when using the nose cone or scribing with a diamond blade.

### Powerful and Easy-to-Use Engraving Software Package Comes Standard

Included with the EGX-600/400 is a complete suite of engraving software.\*3) Dr. Engrave produces high quality engraving utilizing TrueType fonts. 3D Engrave allows you to produce 3D reliefs. MODELA Player CAM software reads DXF and STL files created with popular 3D CAD programs.\*4) Virtual MODELA\*5) enables simulation of finished shapes for previewing on your computer screen before beginning production. A Windows® driver is also included.

\*3) Compatible with Windows® 95/98/Me/NT 4.0/2000/XP(32-bit edition) and Windows Vista® (32-bit edition).

\*4) Will read DXF-AutoCAD\_r12J and 3D DXF, but not 2D DXF.

\*5) Virtual MODELA simulates data from 3D Engrave and MODELA Player.

### More Advantages

The EGX-600/400 employs a gantry X-axis rail and flat table system which provides space for placing long boards. The t-slot, Bakelite table can be surfaced for ultra-precise engraving and can be removed easily when using jigs, vices or larger materials. An optional center vise quickly secures engraving materials. The hand-held control panel can be extended from the machine, allowing you to start or pause a job from a safe distance, and incorporates a jog dial for changing spindle speed or making menu changes.



Photo: EGX-600